

Telephone 202-508-5000



EDISON ELECTRIC INSTITUTE

OFFICE OF GENERAL COUNSEL

DATE Jan. 3, 2003

FACSIMILE COVER SHEET

This facsimile is TO: Philip A. Cooney

Company name: CEQ

Facsimile number: (202) 456-2710

This facsimile is FROM: Bill Fang

Telephone number: (202) 508-

Number of pages, including cover sheet: 6

If you do not receive legible copies of all pages, call: 202/508-5617

COMMENTS:

Our facsimile number is 202/508-5673

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January 13, 2003

The Honorable Spencer Abraham
Secretary of Energy
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Delivered by Messenger

Dear Mr. Secretary:

The Edison Electric Institute (EEI) continues to support voluntary actions to reduce greenhouse gases (GHGs) and specifically supports the President's goal of reducing U.S. GHG intensity by 18 percent by 2012. EEI and the electric utility industry¹ are world leaders in voluntary actions to reduce, avoid or sequester GHGs. Under the Climate Challenge program initiated by the electric utility industry and the government in 1994, the power sector reported more than 237 million metric tons of carbon dioxide (CO₂)-equivalent emission reductions, avoidances and sequestrations in the year 2000 alone – the equivalent of taking 44 million cars and trucks off the road for that year.

EEI has been working with our EPICI industry allies and our member companies to develop a joint response from the entire power sector that reflects our fair contribution to the President's goal. Accordingly, EPICI plans to enter into a cooperative umbrella agreement or memorandum of understanding (MOU) with DOE by May 1, 2003. From 1990 to 2000, electric power carbon emissions per KWH of generation decreased 1.2 percent. In the next decade, EEI will work with our EPICI industry allies and the government to further reduce the power sector's carbon intensity and to achieve the

¹ In response to President Bush's call for action, EEI joined with six other power sector groups – Nuclear Energy Institute (NEI), American Public Power Association, Large Public Power Council, National Rural Electric Cooperative Association, Electric Power Supply Association and Tennessee Valley Authority (TVA) – to form the Electric Power Industry Climate Initiative (EPICI). EPICI's primary purpose is to coordinate the power sector's voluntary climate activities in cooperation with, and with assistance from, the Department of Energy (DOE) and other government agencies. The partnership between EPICI and DOE has been designated "Power PartnersSM." Power PartnersSM, along with other industry partnerships with DOE, constitute the "President's Energy Partners for Climate Action" (also referred to as "Business Challenges"). Several EEI member companies are also participating in other voluntary climate programs, such as the Climate Leaders (with the Environmental Protection Agency (EPA)), the Chicago Climate Exchange, Business Round Table and Partnerships for Climate Action.

DRAFT-
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The Honorable Spencer Abraham
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Page 2

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Individual Company Activities as the Cornerstone. . .

In order to reach the President's goal, EEI has strongly recommended that member companies focus on quantitative, concrete and specific activities to reduce, avoid or sequester GHGs.

Once the umbrella MOU is completed, individual member companies can enter into company agreements with DOE. Activities pledged in these documents will include individual company actions -- whether undertaken as a member of EEI, NEI or any other group -- and joint, industry-wide initiatives (see discussion below).

Supporting individual company actions will be the Power Partners Resource Guide, which will set forth a panoply of supply- and demand-side options for companies to consider in order to reduce, avoid and sequester GHGs. Among these activities will likely be: additional natural gas and clean coal technology generation; additional nuclear generation (through increased capacity, upratings and plant restarts)³; additional renewables, energy efficiency and demand-side management; and additional offset projects (e.g., tree planting and forest management, methane projects and international projects).

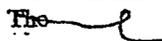
. . . Supplemented by Industry Initiatives

In addition to individual company actions, which are the cornerstone of Power PartnersSM voluntary programs, EEI member companies will also participate in industry initiatives. Our industry currently has eight initiatives underway, with six headed by EEI and two led by EPRI. The current forecast for these initiatives is contained in Enclosure 2 to this letter.

Other Actions

In conjunction with our EPICI industry allies, EEI also plans to issue an interim report that examines the progress of Power PartnersSM activities and will seek to identify

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³ See NEI letter of December 23, 2002, to you. 

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Furthermore, EEI will strive to obtain full company participation in Power PartnersSM. Companies currently participating comprise more than 84 percent of EEI member company generation.

We appreciate the opportunity to work with DOE and other agencies as part of the President's Energy Partners for Climate Action, and look forward to participating in the January 23, 2003, kickoff event in Washington, D.C.

Sincerely,

Thomas R. Kuhn

TRK:lsf
Enclosures (2)
cc (w/ encs):
Vicki A. Bailey
Assistant Secretary
DOE Office of Policy and International Affairs

Larisa Dobriansky, Esq.
Deputy Assistant Secretary
DOE Office of Policy and International Affairs

James L. Connaughton, Esq.
Chairman
Council on Environmental Quality

Philip A. Cooney, Esq.
Chief of Staff
Council of Environmental Quality

Christine Todd Whitman
Administrator
Environmental Protection Agency

bcc (w/ encs):

DRAFT

Enclosure 2

Contributions from EEI and EPRI Industry-wide Initiatives

The current forecast for EEI's industry initiatives is as follows:

- ForestTree Carbon Company: As much as 2 million metric tons of carbon dioxide (CO₂) are expected to be sequestered over the lifetime of the projects.¹
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EPRI's carbon capture and storage and climate technology roadmap initiatives: These long-term, research, development and deployment programs are unlikely to yield significant tons of GHGs reduced, avoided or sequestered in the short to medium term, but their potential for addressing GHGs in the long term is high.

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Back To Phil



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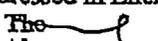
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DOE Office of Policy and International Affairs

Larisa Dobriansky, Esq.

Deputy Assistant Secretary

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Philip A. Cooney, Esq.

Chief of Staff

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Christine Todd Whitman

Administrator

Environmental Protection Agency

bcc (w/ encs):

Enclosure 1

Government Policies

One key to the success of voluntary climate programs for the power sector is the implementation of appropriate government policies. Overall, increased support for emissions-free or less fossil fuel-intensive technologies or practices – such as renewables, clean coal technologies, and energy efficiency and demand-side management – can help drive down greenhouse gases (GHGs). We are heartened by the announcement last fall that the Department of Energy's nearly \$50 million of annual support for geological carbon sequestration will be increased up to \$90 million. Funding for international power projects would also be helpful.

With regard to changes in policies and regulations, Administration support of hydroelectric relicensing reform, nuclear power plant licensing extensions, and reform of the new source review regulations under the Clean Air Act would directly or indirectly decrease GHGs.

Other incentives to industry participation in voluntary programs include reporting reforms under Energy Policy Act (EPA) section 1605(b), which the February 14 presidential statement articulated as the award of transferable credit and not penalizing those taking voluntary measures for their actions under future climate policy (which some have characterized as "baseline protection"). In addition, the July 8, 2002, four-agency letter to the President recommended a placeholder for activities previously reported under the EPA section 1605(b) guidelines.

Government tax policies that could assist in reducing GHGs include accelerated depreciation and amortization of pollution control equipment. Other important financial incentives include production tax credits for renewables and tax incentives for hybrid and fuel cell vehicles.

Enclosure 2

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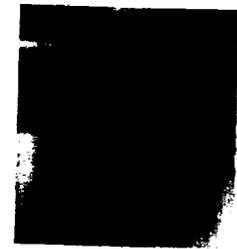
Climate Change

Working Together to Make a Difference



Climate Change Plan for Canada

Paul, - FYI in case
you were interested.
I have some color background
on the last air trading issue
(p. 43).
Return when done. - Kim P.
1/6/03



Government
of Canada

Gouvernement
du Canada

001669

Canada 003660

Next generation energy systems include fuel cells and the "hydrogen economy". Fuel cells powered by hydrogen could replace the internal combustion engine and provide power sources for buildings. Canadian companies are already world leaders in fuel cell and hydrogen technologies.

Under Action Plan 2000, the Government of Canada is working with industry to resolve the challenge of re-fueling infrastructure for fuel cells. The Government is also prepared to explore further means by which Canada's leadership in this area can be supported, including demonstration of fuel cells in federal buildings. Key to the hydrogen economy will be the development of clean, efficient energy sources to produce hydrogen.

Biotechnology offers another area of opportunity for climate- and environmentally friendly innovation. Bioproducts, for example, use plants to produce fuels such as ethanol that can be blended into gasoline and a wide range of products, including plastics, textiles, paints, lubricants, solvents, adhesives and even cosmetics. Enzymes and biocatalysts are also used in industrial processes to supplement or replace more energy intensive processes. Bioproducts provide alternatives to products derived from fossil fuels (e.g., gasoline and petrochemicals) and can help avoid substantial greenhouse gas and other emissions. Growth in bio-based products will also stimulate rural economic development by creating new markets for what are now waste materials. The Government of Canada is joining with provincial governments, industry and academia to develop a technology roadmap for further advancing bioproducts in Canada.

Infrastructure

Modern infrastructure is a vital part of creating and maintaining prosperity in Canada. It is also a key part of positioning Canada to take advantage of opportunities in the greener economy of tomorrow.

As announced in the recent Speech from the Throne, the Government of Canada will work with provinces and municipalities to establish a 10-year infrastructure program that will accommodate long-term strategic initiatives essential to competitiveness and sustainable growth. This will be key to the quality of life in both urban and rural areas.

Within this framework, a new strategy for a safe, efficient and environmentally responsible transportation system will be introduced. Such an initiative could help reduce congestion in cities and bottlenecks in trade corridors, while improving air quality.

New urban transit infrastructure in some of Canada's largest cities can contribute to more efficient movement of goods and people, while reducing greenhouse gas emissions.

Similarly, intermodal freight technologies – integrating rail, water and road – could significantly reduce traffic congestion while providing co-benefits such as reducing air pollution and greenhouse gas emissions.

The Government of Canada will explore investments in projects such as a pipeline to move CO₂ from emissions sites to locations where it can be utilized or stored, in order to help achieve our climate change objectives, while at the same time encouraging greater energy production productivity and innovation.

Partnership Fund

As with any national project, the heart of the Plan is partnerships. Innovation and infrastructure are two areas where the Plan will build on the Government of Canada's long and successful track record of working closely and collaboratively with provinces, territories, municipalities and communities, Aboriginal peoples, the private sector and non-governmental organizations. The Government of Canada will also create a new mechanism, a Partnership Fund, through which it will co-invest and collaborate on emissions reduction projects.

Governments and stakeholders across Canada face different opportunities, challenges and priorities for action on climate change. In addition, many are engaged in ongoing processes of developing their own strategies and plans. The Partnership Fund will enable the Government of Canada to be responsive to this diversity of interests and evolution of ideas.

The overall approach is to establish a fund through which the Government will cost-share the best emissions reduction proposals as they emerge over time. The Fund will be results-oriented, selecting the most cost-effective projects while also taking into

the large industrial emitters are forecast to contribute almost 50 percent of Canadian emissions by 2010.

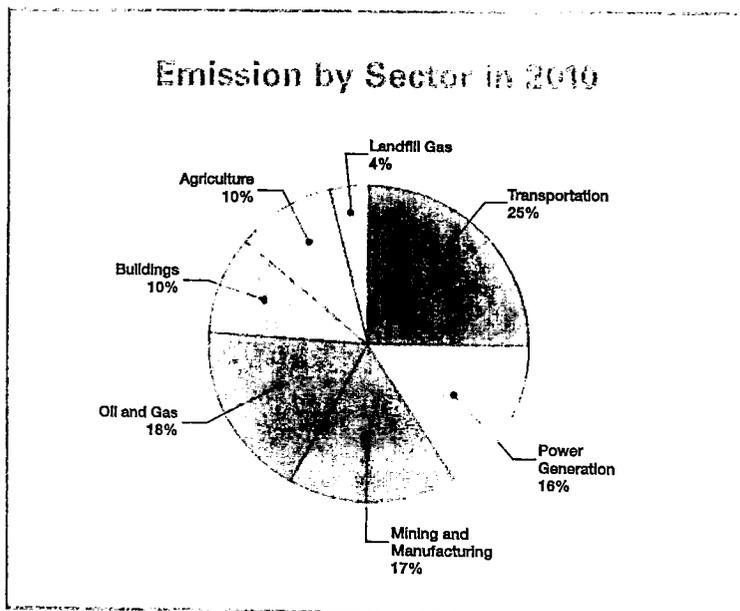
The Plan proposes a three-pronged approach to the large industrial emitters:

- targets for emissions reductions established through covenants with a regulatory or financial backstop (55 MT);
- access to emissions trading, domestic offsets, and international permits to provide flexibility; and
- complementary measures, including cost-shared investments in innovative technologies to reduce emissions (11 MT – see next section on Renewable Energy and Cleaner Fossil Fuels)

In all its work with the large emitters, the Government will seek to design measures that are effective in encouraging lower emissions, that are administratively efficient and clear, and that maintain the competitiveness of Canadian industry.

Covenants and Emissions Trading

Industry has expressed interest in covenants as an approach that may lend itself more readily to dealing with individual sector circumstances than a purely regulatory approach. The United Kingdom has used covenants for implementing emissions reductions and emissions trading. Companies or sectors that enter into these agreements and comply with them are then exempted from the climate change levy.



- thermal electricity generation (coal, oil and gas)
- oil and gas (upstream extraction, oil and gas pipelines, gas utilities, petroleum refining)
- mining (both metal and non-metal)
- pulp and paper production
- chemical production (industrial inorganic chemicals, industrial organic chemicals and chemical fertilizers and fertilizer materials)
- iron and steel production
- smelting and refining
- cement and lime production
- glass and glass container production

When emissions reductions in sectors not covered by an emissions trading system are sold into that system, these reductions are called "offsets" because they offset emissions generated by industries in the emissions trading system. This Plan proposes that the forestry, agriculture and possibly landfill sectors be permitted to sell offsets into the emissions trading system. For example, the mass planting of trees, which acts as a carbon sink, could generate an offset that could be traded to another company looking to reduce its emissions. Since these emissions reductions would offset emissions reductions that would otherwise be required of large industrial emitters, they would not lead to more emissions reductions in Canada overall. The advantage of offsets is that they could provide alternatives for reducing emissions to the large industrial emitters, and a market mechanism for stimulating emissions reductions in other sectors.

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 3-JAN-2003 16:32:20.00

SUBJECT:: Dr. Mahoney to testify at full Senate Commerce Committee hearing

TO: Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP@EOP [CEQ])

READ: UNKNOWN

TEXT:

FYI, Phil

----- Forwarded by Phil Cooney/CEQ/EOP on 01/03/2003
04:15 PM -----

Stephanie Harrington <Stephanie.Harrington@noaa.gov>

01/03/2003 03:30:35 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: Dr. Mahoney to testify at full Senate Commerce Committee hearing

FYI - Dr. Mahoney has been invited to testify on wednesday, January 8, at 2:30 p.m. in the Senate Russell Building, Room 253, in front of the Senate Committee on Commerce, Science, and Transportation. (See attached pdf file for letter of invitation.) It will be a Full Committee hearing on climate change and implementing a program of mandatory reductions in greenhouse gas emissions and an associated trading system for emission credits. Testimony will also will be heard on legislation for such a trading system expected to be introduced by Senators McCain and Lieberman in advance of the hearing. Dr. Mahoney will be the only Administration witness and will focus his testimony on the recently released draft strategic plan for federal climate and global change research and the public workshop on this plan held on December 3 to 5, 2002, in Washington, DC.

Interagency and White House review of Dr. Mahoney's statement will be conducted on January 6 and 7. Dr. Mahoney has spoken with Committee staff about the number of agencies involved in this review so they are expecting it later than usual, but we anticipate providing it to them by COB January 7.

Please let me know if you have any questions,
Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944 or 202-419-2487

- Hearing_Invite.pdf

Message Sent

To:

whohenst <whohenst@OCE.USDA.gov>
mleinen <mleinen@nsf.gov>
neale <neale@serc.si.edu>
cgroat <cgroat@usgs.gov>

Page 1

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003214

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mmoore <mmoore@osophs.dhhs.gov>
Phil Cooney/CEQ/EOP@EOP
"slimak.michael" <slimak.michael@epa.gov>
Erin Wuchte/OMB/EOP@EOP
"Linda.Lawson" <Linda.Lawson@ost.dot.gov>
andrewj <andrewj@onr.navy.mil>
Mary Glackin <Mary.Glackin@noaa.gov>
"Simmons Emmy B." <EmSimmons@usaid.gov>
David Halpern/OSTP/EOP@EOP

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To:

gant <gant@niehs.nih.gov>
tspence <tspence@nsf.gov>
"Robert.Card" <Robert.Card@hq.doe.gov>
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Avery Susan <savery@cires.colorado.edu>
Gorsevski Virginia <VGorsevski@usaid.gov>
Robert Marlay <Robert.Marlay@hq.doe.gov>

===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

Unable to convert NSREOP0101:[ATTACH.D62]SREOP01300CP4FG.001 to ASCII,
The following is a HEX DUMP:

===== END ATTACHMENT 1 =====

0003_f_pf4pc003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

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SUBJECT:: Re: Dr. Mahoney to testify at full Senate Commerce Committee hearing

TO: Stephanie Harrington <Stephanie.Harrington@noaa.gov> (Stephanie Harrington <Stephanie.Harrington@noaa.gov> [UNKNOWN])

READ: UNKNOWN

TEXT:

Do you have a draft of his testimony yet? I will be in this weekend. See you Monday, Phil

Stephanie Harrington <Stephanie.Harrington@noaa.gov>

01/03/2003 03:30:35 PM

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003215

CEQ 003867

0003_f_pf4pc003_ceq.txt

neale <neale@serc.si.edu>
cgroat <cgroat@usgs.gov>
watsonhl <watsonhl@state.gov>
gasrar <gasrar@hq.nasa.gov>
"Ari.Patrinis" <Ari.Patrinis@science.doe.gov>
mmoore <mmoore@osophs.dhhs.gov>
Phil Cooney/CEQ/EOP@EOP
"slimak.michael" <slimak.michael@epa.gov>
Erin Wuchte/OMB/EOP@EOP
"Linda.Lawson" <Linda.Lawson@ost.dot.gov>
andrewj <andrewj@onr.navy.mil>
Mary Glackin <Mary.Glackin@noaa.gov>
"Simmons Emmy B." <EmSimmons@usaid.gov>
David Halpern/OSTP/EOP@EOP

Message Copied

To:

gant <gant@niehs.nih.gov>
tspence <tspence@nsf.gov>
"Robert.Card" <Robert.Card@hq.doe.gov>
Mcleave <Mcleave@hq.nasa.gov>
"Jack.Kaye" <Jack.Kaye@hq.nasa.gov>
kbarrett <kbarrett@usaid.gov>
"hratch.semerjian" <hratch.semerjian@nist.gov>
NelsonDJ2 <NelsonDJ2@state.gov>
David P. Radzanowski/OMB/EOP@EOP
"Joanne.R.Potter" <Joanne.R.Potter@fhwa.dot.gov>
artusiocf <artusiocf@state.gov>
jfein <jfein@nsf.gov>
"parker.kathryn" <parker.kathryn@epa.gov>
"Jerry.Elwood" <Jerry.Elwood@science.doe.gov>
"scheraga.joel" <scheraga.joel@epa.gov>
mgarcia <mgarcia@usgs.gov>
"Patel-weynand Toral O (OES)" <Patel-weynandTO@state.gov>
'genene.fisher "' <genene.fisher@noaa.gov>
'Margarita Gregg ' <Margarita.Gregg@noaa.gov>
Anderson Margot <Margot.Anderson@hq.doe.gov>
Chet Koblinsky <koblinsky@gsfc.nasa.gov>
"Margaret.R.Mccalla" <Margaret.R.Mccalla@noaa.gov>
Avery Susan <savery@cires.colorado.edu>
Gorsevski Virginia <VGorsevski@usaid.gov>
Robert Marlay <Robert.Marlay@hq.doe.gov>

===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

Unable to convert NSREOP0101:[ATTACH.D71]SREOP01300CP4FP.001 to ASCII,
The following is a HEX DUMP:

===== END ATTACHMENT 1 =====

0004_f_eu4pc003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Stephanie Harrington <Stephanie.Harrington@noaa.gov> (Stephanie Harrington <Stephanie.Harrington@noaa.gov> [UNKNOWN])

CREATION DATE/TIME: 3-JAN-2003 16:39:24.00

SUBJECT:: Dr. Mahoney to testify at full Senate Commerce Committee hearing

TO:David Halpern (CN=David Halpern/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TO:Mary Glackin <Mary.Glackin@noaa.gov> (Mary Glackin <Mary.Glackin@noaa.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Linda.Lawson" <Linda.Lawson@ost.dot.gov> ("Linda.Lawson" <Linda.Lawson@ost.dot.gov> [UNKNOWN])
READ:UNKNOWN

TO:"slimak.michael" <slimak.michael@epa.gov> ("slimak.michael" <slimak.michael@epa.gov> [UNKNOWN])
READ:UNKNOWN

TO:mmoore <mmoore@osophs.dhhs.gov> (mmoore <mmoore@osophs.dhhs.gov> [UNKNOWN])
READ:UNKNOWN

TO:gasrar <gasrar@hq.nasa.gov> (gasrar <gasrar@hq.nasa.gov> [UNKNOWN])
READ:UNKNOWN

TO:cgroat <cgroat@usgs.gov> (cgroat <cgroat@usgs.gov> [UNKNOWN])
READ:UNKNOWN

TO:mleinen <mleinen@nsf.gov> (mleinen <mleinen@nsf.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Simmons Emmy B." <EmSimmons@usaid.gov> ("Simmons Emmy B." <EmSimmons@usaid.gov> [UNKNOWN])
READ:UNKNOWN

TO:andrewj <andrewj@onr.navy.mil> (andrewj <andrewj@onr.navy.mil> [UNKNOWN])
READ:UNKNOWN

TO:Erin wuchte (CN=Erin wuchte/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:"Ari.Patrinis" <Ari.Patrinis@science.doe.gov> ("Ari.Patrinis" <Ari.Patrinis@science.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:watsonhl <watsonhl@state.gov> (watsonhl <watsonhl@state.gov> [UNKNOWN])
READ:UNKNOWN

TO:neale <neale@serc.si.edu> (neale <neale@serc.si.edu> [UNKNOWN])
READ:UNKNOWN

TO:whohenst <whohenst@OCE.USDA.gov> (whohenst <whohenst@OCE.USDA.gov> [UNKNOWN])
READ:UNKNOWN

CC:Gorsevski Virginia <VGorsevski@usaid.gov> (Gorsevski Virginia

Page 1

003216

CEQ 003870

0004_f_eu4pc003_ceq.txt

<VGorsevski@usaid.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Margaret.R.Mccalla" <Margaret.R.Mccalla@noaa.gov> ("Margaret.R.Mccalla"
<Margaret.R.Mccalla@noaa.gov> [UNKNOWN])
READ:UNKNOWN

CC:Anderson Margot <Margot.Anderson@hq.doe.gov> (Anderson Margot
<Margot.Anderson@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

CC:"'genene.fisher '" <genene.fisher@noaa.gov> ("'genene.fisher '"
<genene.fisher@noaa.gov> [UNKNOWN])
READ:UNKNOWN

CC:mgarcia <mgarcia@usgs.gov> (mgarcia <mgarcia@usgs.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Jerry.Elwood" <Jerry.Elwood@science.doe.gov> ("Jerry.Elwood"
<Jerry.Elwood@science.doe.gov> [UNKNOWN])
READ:UNKNOWN

CC:jfein <jfein@nsf.gov> (jfein <jfein@nsf.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Joanne.R.Potter" <Joanne.R.Potter@fhwa.dot.gov> ("Joanne.R.Potter"
<Joanne.R.Potter@fhwa.dot.gov> [UNKNOWN])
READ:UNKNOWN

CC:NelsonDJ2 <NelsonDJ2@state.gov> (NelsonDJ2 <NelsonDJ2@state.gov> [UNKNOWN])
READ:UNKNOWN

CC:kbarrett <kbarrett@usaid.gov> (kbarrett <kbarrett@usaid.gov> [UNKNOWN])
READ:UNKNOWN

CC:Mcleave <Mcleave@hq.nasa.gov> (Mcleave <Mcleave@hq.nasa.gov> [UNKNOWN])
READ:UNKNOWN

CC:tspence <tspence@nsf.gov> (tspence <tspence@nsf.gov> [UNKNOWN])
READ:UNKNOWN

CC:Robert Marlay <Robert.Marlay@hq.doe.gov> (Robert Marlay
<Robert.Marlay@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

CC:Avery Susan <savery@cires.colorado.edu> (Avery Susan <savery@cires.colorado.edu>
[UNKNOWN])
READ:UNKNOWN

CC:Chet Koblinsky <koblinsky@gsfc.nasa.gov> (Chet Koblinsky
<koblinsky@gsfc.nasa.gov> [UNKNOWN])
READ:UNKNOWN

CC:'Margarita Gregg ' <Margarita.Gregg@noaa.gov> ('Margarita Gregg '
<Margarita.Gregg@noaa.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Patel-weynand Toral O (OES)" <Patel-weynandTO@state.gov> ("Patel-weynand Toral
O (OES)" <Patel-weynandTO@state.gov> [UNKNOWN])
READ:UNKNOWN

CC:"scheraga.joel" <scheraga.joel@epa.gov> ("scheraga.joel" <scheraga.joel@epa.gov>
[UNKNOWN])

0004_f_eu4pc003_ceq.txt

READ:UNKNOWN

CC:"parker.kathryn" <parker.kathryn@epa.gov> ("parker.kathryn" <parker.kathryn@epa.gov> [UNKNOWN])
READ:UNKNOWN

CC:artusiocf <artusiocf@state.gov> (artusiocf <artusiocf@state.gov> [UNKNOWN])
READ:UNKNOWN

CC:David P. Radzanowski (CN=David P. Radzanowski/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

CC:"hratch.semerjian" <hratch.semerjian@nist.gov> ("hratch.semerjian" <hratch.semerjian@nist.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Jack.Kaye" <Jack.Kaye@hq.nasa.gov> ("Jack.Kaye" <Jack.Kaye@hq.nasa.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Robert.Card" <Robert.Card@hq.doe.gov> ("Robert.Card" <Robert.Card@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

CC:gant <gant@niehs.nih.gov> (gant <gant@niehs.nih.gov> [UNKNOWN])
READ:UNKNOWN

TEXT:

FYI - Dr. Mahoney has been invited to testify on wednesday, January 8, at 2:30 p.m. in the Senate Russell Building, Room 253, in front of the Senate Committee on Commerce, Science, and Transportation. (See attached pdf file for letter of invitation.) It will be a Full Committee hearing on climate change and implementing a program of mandatory reductions in greenhouse gas emissions and an associated trading system for emission credits. Testimony will also will be heard on legislation for such a trading system expected to be introduced by Senators McCain and Lieberman in advance of the hearing. Dr. Mahoney will be the only Administration witness and will focus his testimony on the recently released draft strategic plan for federal climate and global change research and the public workshop on this plan held on December 3 to 5, 2002, in Washington, DC.

Interagency and White House review of Dr. Mahoney's statement will be conducted on January 6 and 7. Dr. Mahoney has spoken with Committee staff about the number of agencies involved in this review so they are expecting it later than usual, but we anticipate providing it to them by COB January 7.

Please let me know if you have any questions,
Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944 or 202-419-2487

- Hearing_Invite.pdf===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

Unable to convert NSREOP0101:[ATTACH.D0]SREOP01300CP4UE.001 to ASCII,
The following is a HEX DUMP:

===== END ATTACHMENT 1 =====

0006_f_fa5pc003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Stephanie Harrington <Stephanie.Harrington@noaa.gov> (Stephanie Harrington
<Stephanie.Harrington@noaa.gov> [UNKNOWN])

CREATION DATE/TIME: 3-JAN-2003 16:47:22.00

SUBJECT:: Re: Dr. Mahoney to testify at full Senate Commerce Committee hearing

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])

READ:UNKNOWN

TEXT:

We are still working on it. I will let Jim know you will be working this weekend so that if he gets to the point where he wants to send it out before Monday he can send it to you.
Stephanie

Phil_Cooney@ceq.eop.gov wrote:

> Do you have a draft of his testimony yet? I will be in this weekend.

See you

> Monday, Phil

>

>

> (Embedded
> image moved Stephanie Harrington
> to file: <Stephanie.Harrington@noaa.gov>
> pic15543.pcx) 01/03/2003 03:30:35 PM

>

>

> Record Type: Record

>

> To: See the distribution list at the bottom of this message

>

> cc: See the distribution list at the bottom of this message

> Subject: Dr. Mahoney to testify at full Senate Commerce Committee hearing

>

> FYI - Dr. Mahoney has been invited to testify on Wednesday, January 8,
> at 2:30 p.m. in the Senate Russell Building, Room 253, in front of the
> Senate Committee on Commerce, Science, and Transportation. (See attached
> pdf file for letter of invitation.) It will be a Full Committee hearing
> on climate change and implementing a program of mandatory reductions in
> greenhouse gas emissions and an associated trading system for emission
> credits. Testimony will also will be heard on legislation for such a
> trading system expected to be introduced by Senators McCain and
> Lieberman in advance of the hearing. Dr. Mahoney will be the only
> Administration witness and will focus his testimony on the recently
> released draft strategic plan for federal climate and global change
> research and the public workshop on this plan held on December 3 to 5,
> 2002, in Washington, DC.

>

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> conducted on January 6 and 7. Dr. Mahoney has spoken with Committee
> staff about the number of agencies involved in this review so they are
> expecting it later than usual, but we anticipate providing it to them by
> COB January 7.

>

> Please let me know if you have any questions,

> Stephanie Harrington

Page 1

003217

CEQ 003874

0006_f_fa5pc003_ceq.txt

> U.S. Climate Change Science Program
> 202-482-1944 or 202-419-2487

>

> Name: Hearing_Invite.pdf
> Type: Acrobat (application/pdf)
> Hearing_Invite.pdf Encoding: BASE64
> Description: Adobe Portable Document
> Download Status: Not downloaded with message
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> Message Sent
> To: _____

> whohenst <whohenst@OCE.USDA.gov>
> mleinen <mleinen@nsf.gov>
> neale <neale@serc.si.edu>
> cgroat <cgroat@usgs.gov>
> watsonhl <watsonhl@state.gov>
> gasrar <gasrar@hq.nasa.gov>
> "Ari.Patrinis" <Ari.Patrinis@science.doe.gov>
> mmoore <mmoore@osophs.dhhs.gov>
> Phil Cooney/CEQ/EOP@EOP
> "slimak.michael" <slimak.michael@epa.gov>
> Erin Wuchte/OMB/EOP@EOP
> "Linda.Lawson" <Linda.Lawson@ost.dot.gov>
> andrewj <andrewj@onr.navy.mil>
> Mary Glackin <Mary.Glackin@noaa.gov>
> "Simmons Emmy B." <EmSimmons@usaid.gov>
> David Halpern/OSTP/EOP@EOP

> Message Copied
> To: _____

> gant <gant@niehs.nih.gov>
> tspence <tspence@nsf.gov>
> "Robert.Card" <Robert.Card@hq.doe.gov>
> Mcleave <Mcleave@hq.nasa.gov>
> "Jack.Kaye" <Jack.Kaye@hq.nasa.gov>
> kbarrett <kbarrett@usaid.gov>
> "hratch.semerjian" <hratch.semerjian@nist.gov>
> NelsonDJ2 <NelsonDJ2@state.gov>
> David P. Radzanowski/OMB/EOP@EOP
> "Joanne.R.Potter" <Joanne.R.Potter@fhwa.dot.gov>
> artusiocf <artusiocf@state.gov>
> jfein <jfein@nsf.gov>
> "parker.kathryn" <parker.kathryn@epa.gov>
> "Jerry.Elwood" <Jerry.Elwood@science.doe.gov>
> "scheraga.joel" <scheraga.joel@epa.gov>
> mgarcia <mgarcia@usgs.gov>
> "Patel-weynand Toral O (OES)" <Patel-weynandTO@state.gov>
> "genene.fisher" <genene.fisher@noaa.gov>
> "Margarita Gregg" <Margarita.Gregg@noaa.gov>
> Anderson Margot <Margot.Anderson@hq.doe.gov>
> Chet Koblinsky <koblinsky@gsfc.nasa.gov>
> "Margaret.R.Mccalla" <Margaret.R.Mccalla@noaa.gov>
> Avery Susan <savery@cires.colorado.edu>
> Gorsevski Virginia <VGorsevski@usaid.gov>
> Robert Marlay <Robert.Marlay@hq.doe.gov>

0006_f_fa5pc003_ceq.txt

>
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Name: pic15543.pcx
Type: Acrobat (application/pdf)
pic15543.pcx Encoding: BASE64
Description: Adobe Portable Document
Download Status: Not downloaded with message

0007_f_hx5pc003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 3-JAN-2003 16:58:07.00

SUBJECT:: Re: Dr. Mahoney to testify at full Senate Commerce Committee hearing

TO: Stephanie Harrington <Stephanie.Harrington@noaa.gov> (Stephanie Harrington
<Stephanie.Harrington@noaa.gov> [UNKNOWN])

READ: UNKNOWN

TEXT:

thank you, Phil

Stephanie Harrington <Stephanie.Harrington@noaa.gov>

01/03/2003 04:32:06 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP

cc:

Subject: Re: Dr. Mahoney to testify at full Senate Commerce Committee hearing

We are still working on it. I will let Jim know you will be working this weekend so that if he gets to the point where he wants to send it out before Monday he can send it to you.
Stephanie

Phil_Cooney@ceq.eop.gov wrote:

> Do you have a draft of his testimony yet? I will be in this weekend.

See you

> Monday, Phil

>

>

> (Embedded

> image moved Stephanie Harrington

> to file: <Stephanie.Harrington@noaa.gov>

> pic15543.pcx) 01/03/2003 03:30:35 PM

>

>

> Record Type: Record

>

> To: See the distribution list at the bottom of this message

>

> cc: See the distribution list at the bottom of this message

> Subject: Dr. Mahoney to testify at full Senate Commerce Committee hearing

>

> FYI - Dr. Mahoney has been invited to testify on Wednesday, January 8,

> at 2:30 p.m. in the Senate Russell Building, Room 253, in front of the

> Senate Committee on Commerce, Science, and Transportation. (See attached

> pdf file for letter of invitation.) It will be a Full Committee hearing

> on climate change and implementing a program of mandatory reductions in

Page 1

003218

CEQ 003878

0007_f_hx5pc003_ceq.txt

> greenhouse gas emissions and an associated trading system for emission
> credits. Testimony will also will be heard on legislation for such a
> trading system expected to be introduced by Senators McCain and
> Lieberman in advance of the hearing. Dr. Mahoney will be the only
> Administration witness and will focus his testimony on the recently
> released draft strategic plan for federal climate and global change
> research and the public workshop on this plan held on December 3 to 5,
> 2002, in Washington, DC.
>
> Interagency and white House review of Dr. Mahoney's statement will be
> conducted on January 6 and 7. Dr. Mahoney has spoken with Committee
> staff about the number of agencies involved in this review so they are
> expecting it later than usual, but we anticipate providing it to them by
> COB January 7.
>
> Please let me know if you have any questions,
> Stephanie Harrington
> U.S. Climate Change Science Program
> 202-482-1944 or 202-419-2487
>
>

> Name: Hearing_Invite.pdf
> Type: Acrobat (application/pdf)
> Hearing_Invite.pdf Encoding: BASE64
> Description: Adobe Portable Document
> Download Status: Not downloaded with message
>
>

> Message Sent

To: _____
>
> whohenst <whohenst@OCE.USDA.gov>
> mleinen <mleinen@nsf.gov>
> neale <neale@serc.si.edu>
> cgroat <cgroat@usgs.gov>
> watsonhl <watsonhl@state.gov>
> gasrar <gasrar@hq.nasa.gov>
> "Ari.Patrinis" <Ari.Patrinis@science.doe.gov>
> mmoore <mmoore@osophs.dhhs.gov>
> Phil Cooney/CEQ/EOP@EOP
> "slimak.michael" <slimak.michael@epa.gov>
> Erin Wuchte/OMB/EOP@EOP
> "Linda.Lawson" <Linda.Lawson@ost.dot.gov>
> andrewj <andrewj@onr.navy.mil>
> Mary Glackin <Mary.Glackin@noaa.gov>
> "Simmons Emmy B." <EmSimmons@usaid.gov>
> David Halpern/OSTP/EOP@EOP
>

> Message Copied

To: _____
>
> gant <gant@niehs.nih.gov>
> tspence <tspence@nsf.gov>
> "Robert.Card" <Robert.Card@hq.doe.gov>
> Mcleave <Mcleave@hq.nasa.gov>
> "Jack.Kaye" <Jack.Kaye@hq.nasa.gov>
> kbarrett <kbarrett@usaid.gov>
> "hratch.semerjian" <hratch.semerjian@nist.gov>
> NelsonDJ2 <NelsonDJ2@state.gov>
> David P. Radzanowski/OMB/EOP@EOP
>

Page 2

CEQ 003879

0007_f_hx5pc003_ceq.txt

> "Joanne.R.Potter" <Joanne.R.Potter@fhwa.dot.gov>
> artusiofcf <artusiofcf@state.gov>
> jfein <jfein@nsf.gov>
> "parker.kathryn" <parker.kathryn@epa.gov>
> "Jerry.Elwood" <Jerry.Elwood@science.doe.gov>
> "scheraga.joel" <scheraga.joel@epa.gov>
> mgarcia <mgarcia@usgs.gov>
> "Patel-weynand Toral O (OES)" <Patel-weynandTO@state.gov>
> "'genene.fisher '" <genene.fisher@noaa.gov>
> 'Margarita Gregg ' <Margarita.Gregg@noaa.gov>
> Anderson Margot <Margot.Anderson@hq.doe.gov>
> Chet Koblinsky <koblinsky@gsfc.nasa.gov>
> "Margaret.R.Mccalla" <Margaret.R.Mccalla@noaa.gov>
> Avery Susan <savery@cires.colorado.edu>
> Gorsevski Virginia <VGorsevski@usaid.gov>
> Robert Marlay <Robert.Marlay@hq.doe.gov>
>
>

> Name: pic15543.pcx
> Type: Acrobat (application/pdf)
> pic15543.pcx Encoding: BASE64
> Description: Adobe Portable Document
> Download Status: Not downloaded with message

0008_f_yc6pc003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 3-JAN-2003 17:04:43.00

SUBJECT:: Re: Dr. Mahoney to testify at full Senate Commerce Committee hearing

TO: Stephanie Harrington <Stephanie.Harrington@noaa.gov> (Stephanie Harrington
<Stephanie.Harrington@noaa.gov> [UNKNOWN])
READ: UNKNOWN

CC: Marcus Peacock (CN=Marcus Peacock/OU=OMB/O=EOP@EOP [OMB])
READ: UNKNOWN

TEXT:

Stephanie, do you know what 2004 budget will be for CCRI -- overall
climate science? should that be part of testimony? Phil

Stephanie Harrington <Stephanie.Harrington@noaa.gov>
01/03/2003 04:32:06 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP

CC:

Subject: Re: Dr. Mahoney to testify at full Senate Commerce Committee
hearing

We are still working on it. I will let Jim know you will be working this
weekend so
that if he gets to the point where he wants to send it out before Monday
he can
send it to you.
Stephanie

Phil_Cooney@ceq.eop.gov wrote:

> Do you have a draft of his testimony yet? I will be in this weekend.

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> Monday, Phil

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>

> (Embedded
> image moved Stephanie Harrington
> to file: <Stephanie.Harrington@noaa.gov>
> pic15543.pcx) 01/03/2003 03:30:35 PM

>

>

> Record Type: Record

>

> To: See the distribution list at the bottom of this message

>

> cc: See the distribution list at the bottom of this message

> Subject: Dr. Mahoney to testify at full Senate Commerce Committee
hearing

>

> FYI - Dr. Mahoney has been invited to testify on Wednesday, January 8,

Page 1

003219

CEQ 003882

0008_f_yc6pc003_ceq.txt

> at 2:30 p.m. in the Senate Russell Building, Room 253, in front of the
> Senate Committee on Commerce, Science, and Transportation. (See attached
> pdf file for letter of invitation.) It will be a Full Committee hearing
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> research and the public workshop on this plan held on December 3 to 5,
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> COB January 7.

>
> Please let me know if you have any questions,
> Stephanie Harrington
> U.S. Climate Change Science Program
> 202-482-1944 or 202-419-2487

>-----
> Name: Hearing_Invite.pdf
> Type: Acrobat (application/pdf)
> Hearing_Invite.pdf Encoding: BASE64
> Description: Adobe Portable Document
> Download Status: Not downloaded with message
>-----

> Message Sent

To: _____
>
> whohenst <whohenst@OCE.USDA.gov>
> mleinen <mleinen@nsf.gov>
> neale <neale@serc.si.edu>
> cgroat <cgroat@usgs.gov>
> watsonhl <watsonhl@state.gov>
> gasrar <gasrar@hq.nasa.gov>
> "Ari.Patrinis" <Ari.Patrinis@science.doe.gov>
> mmoore <mmoore@osophs.dhhs.gov>
> Phil Cooney/CEQ/EOP@EOP
> "slimak.michael" <slimak.michael@epa.gov>
> Erin wuchte/OMB/EOP@EOP
> "Linda.Lawson" <Linda.Lawson@ost.dot.gov>
> andrewj <andrewj@onr.navy.mil>
> Mary Glackin <Mary.Glackin@noaa.gov>
> "Simmons Emmy B." <EmSimmons@usaid.gov>
> David Halpern/OSTP/EOP@EOP

> Message Copied

To: _____
>
> gant <gant@niehs.nih.gov>
> tspence <tspence@nsf.gov>
> "Robert.Card" <Robert.Card@hq.doe.gov>
> Mcleave <Mcleave@hq.nasa.gov>
> "Jack.Kaye" <Jack.Kaye@hq.nasa.gov>

Page 2

CEQ 003883

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> kbarrett <kbarrett@usaid.gov>
> "hratch.semerjian" <hratch.semerjian@nist.gov>
> NelsonDJ2 <NelsonDJ2@state.gov>
> David P. Radzanowski/OMB/EOP/EOP
> "Joanne.R.Potter" <Joanne.R.Potter@fhwa.dot.gov>
> artusiocf <artusiocf@state.gov>
> jfein <jfein@nsf.gov>
> "parker.kathryn" <parker.kathryn@epa.gov>
> "Jerry.Elwood" <Jerry.Elwood@science.doe.gov>
> "scheraga.joel" <scheraga.joel@epa.gov>
> mgarcia <mgarcia@usgs.gov>
> "Patel-weynand Toral O (OES)" <Patel-weynandTO@state.gov>
> "'genene.fisher '" <genene.fisher@noaa.gov>
> 'Margarita Gregg ' <Margarita.Gregg@noaa.gov>
> Anderson Margot <Margot.Anderson@hq.doe.gov>
> Chet Koblinsky <koblinsky@gsfc.nasa.gov>
> "Margaret.R.Mccalla" <Margaret.R.Mccalla@noaa.gov>
> Avery Susan <savery@cires.colorado.edu>
> Gorsevski Virginia <VGorsevski@usaid.gov>
> Robert Marlay <Robert.Marlay@hq.doe.gov>
>
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> pic15543.pcx Encoding: BASE64
> Description: Adobe Portable Document
> Download Status: Not downloaded with message

0009_f_c08pc003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Stephanie Harrington <Stephanie.Harrington@noaa.gov> (Stephanie Harrington
<Stephanie.Harrington@noaa.gov> [UNKNOWN])

CREATION DATE/TIME: 3-JAN-2003 17:39:50.00

SUBJECT:: Re: Dr. Mahoney to testify at full Senate Commerce Committee hearing

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TEXT:

We are currently working with OMB to finalize the numbers, but they are still embargoed, so we cannot use them in the testimony.

Stephanie

Phil_Cooney@ceq.eop.gov wrote:

> Stephanie, do you know what 2004 budget will be for CCRI -- overall
> climate
> science? should that be part of testimony? Phil

>
> (Embedded
> image moved Stephanie Harrington
> to file: <Stephanie.Harrington@noaa.gov>
> pic18993.pcx) 01/03/2003 04:32:06 PM

> Record Type: Record

> To: Phil Cooney/CEQ/EOP@EOP

> CC:
> Subject: Re: Dr. Mahoney to testify at full Senate Commerce Committee
> hearing

> We are still working on it. I will let Jim know you will be working this
> weekend

> so
> that if he gets to the point where he wants to send it out before Monday
> he can
> send it to you.
> Stephanie

> Phil_Cooney@ceq.eop.gov wrote:

> > Do you have a draft of his testimony yet? I will be in this weekend.
> See you
> > Monday, Phil

> > (Embedded
> > image moved Stephanie Harrington
> > to file: <Stephanie.Harrington@noaa.gov>
> > pic15543.pcx) 01/03/2003 03:30:35 PM

> > Record Type: Record

Page 1

003220

CEQ 003886

0009_f_c08pc003_ceq.txt

> > To: See the distribution list at the bottom of this message

> >

> > cc: See the distribution list at the bottom of this message

> > Subject: Dr. Mahoney to testify at full Senate Commerce Committee hearing

> >

> > FYI - Dr. Mahoney has been invited to testify on Wednesday, January 8, at 2:30 p.m. in the Senate Russell Building, Room 253, in front of the Senate Committee on Commerce, Science, and Transportation. (See attached

> > pdf file for letter of invitation.) It will be a Full Committee hearing on climate change and implementing a program of mandatory reductions in greenhouse gas emissions and an associated trading system for emission credits. Testimony will also will be heard on legislation for such a trading system expected to be introduced by Senators McCain and Lieberman in advance of the hearing. Dr. Mahoney will be the only Administration witness and will focus his testimony on the recently released draft strategic plan for federal climate and global change research and the public workshop on this plan held on December 3 to 5, 2002, in Washington, DC.

> >

> > Interagency and White House review of Dr. Mahoney's statement will be conducted on January 6 and 7. Dr. Mahoney has spoken with Committee staff about the number of agencies involved in this review so they are expecting it later than usual, but we anticipate providing it to them by

> > COB January 7.

> >

> > Please let me know if you have any questions,

> > Stephanie Harrington

> > U.S. Climate Change Science Program

> > 202-482-1944 or 202-419-2487

> >

> >

> > Name: Hearing_Invite.pdf
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> > Hearing_Invite.pdf Encoding: BASE64
> > Description: Adobe Portable Document
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> > Message Sent

To:

> >

> > Whohenst <whohenst@OCE.USDA.gov>

> > mleinen <mleinen@nsf.gov>

> > neale <neale@serc.si.edu>

> > cgroat <cgroat@usgs.gov>

> > watsonhl <watsonhl@state.gov>

> > gasrar <gasrar@hq.nasa.gov>

> > "Ari.Patrinis" <Ari.Patrinis@science.doe.gov>

> > mmoore <mmoore@osophs.dhhs.gov>

> > Phil Cooney/CEQ/EOP@EOP

> > "slimak.michael" <slimak.michael@epa.gov>

> > Erin wuchte/OMB/EOP@EOP

> > "Linda.Lawson" <Linda.Lawson@ost.dot.gov>

> > andrewj <andrewj@onr.navy.mil>

> > Mary Glackin <Mary.Glackin@noaa.gov>

> > "Simmons Emmy B." <EmSimmons@usaid.gov>

> > David Halpern/OSTP/EOP@EOP

Page 2

CEQ 003887

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> To: _____

> >
> > gant <gant@niehs.nih.gov>
> > tspence <tspence@nsf.gov>
> > "Robert.Card" <Robert.Card@hq.doe.gov>
> > Mcleave <Mcleave@hq.nasa.gov>
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> > "Joanne.R.Potter" <Joanne.R.Potter@fhwa.dot.gov>
> > artusiofcf <artusiofcf@state.gov>
> > jfein <jfein@nsf.gov>
> > "parker.kathryn" <parker.kathryn@epa.gov>
> > "Jerry.Elwood" <Jerry.Elwood@science.doe.gov>
> > "scheraga.joel" <scheraga.joel@epa.gov>
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> > "Margaret.R.Mccalla" <Margaret.R.Mccalla@noaa.gov>
> > Avery Susan <savery@cires.colorado.edu>
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> > Robert Marlay <Robert.Marlay@hq.doe.gov>
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> >

0015_f_pddqc003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 6-JAN-2003 13:48:25.00

SUBJECT:: hold close: Dr. Mahoney's draft Jan. 8 Senate testimony

TO: Samuel A. Thernstrom (CN=Samuel A. Thernstrom/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Kameran L. Onley (CN=Kameran L. Onley/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TEXT:
----- Forwarded by Phil Cooney/CEQ/EOP on 01/06/2003
01:44 PM -----

Stephanie Harrington <Stephanie.Harrington@noaa.gov>
01/06/2003 01:41:26 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP
CC:
Subject: Dr. Mahoney's draft Jan. 8 Senate testimony

I have attached a copy of Dr. Mahoney's draft testimony for wednesday, January 8, in front of the Senate Committee on Commerce, Science, and Transportation. The attachments to the testimony are also included. Please note, however, that we are still working on getting a better electronic version of the letter to the President, so while it is a true text copy of what was sent, it is not on the letterhead.

I will be sending this out shortly to the CCSP agency reps as well.

Please let me know if you have any questions,
Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944 or 202-419-2487

- Mahoney Senate Commerce Committee Testimony DRAFT OF 1-6-03.doc
- Evans-Abraham to President Letter 9-10-02.doc
- Climate Workshop Announcement.doc
- CCCSTI-Org-Chart.ppt

===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert NSREOP0103:[ATTACH.D63]SREOP01300CQDDP.001 to ASCII,
The following is a HEX DUMP:===== END ATTACHMENT 4
=====

003285

0155-11-0001

United States Senate
Committee on Commerce, Science, and Transportation
Washington, D.C. 20510-6125

MEMORANDUM

To: Dr. James Mahoney Date: 11/16/03
Re. Hearing: 1/08/03 Climate Change - Greenhouse...
(Date of Hearing) (Hearing Title)

Thank you for your recent testimony before the Senate Committee on Commerce, Science, and Transportation. The information you provided is greatly appreciated.

Attached are post-hearing questions pertaining to the above-mentioned hearing. As a courtesy, please submit a single document consolidating the posed questions followed by your answers for insertion in the printed hearing record. They should be mailed electronically to the Committee via the Internet docs@commerce.senate.gov by the date listed below. Should the Committee not receive your response within this time frame or if the Committee staffer assigned to the hearing is not notified of any delay, the Committee reserves the right to print the posed questions in the formal hearing record noting your response was not received.

Date material should be returned: 1/30/03

Committee staffer assigned to the hearing: Mark Brugge

Phone: (202) 224-5184

Thank you for your assistance and, again, thank you for your testimony.

John McCain
John McCain
Ranking Republican



OFFICE OF SCIENCE AND TECHNOLOGY POLICY
Executive Office of the President
Eisenhower Executive Office Building
Washington, DC 20502
Fax: (202) 456-6027
www.ostp.gov

FAX TRANSMITTAL SHEET

Date: 6 Jan 2003

To: Phil Cooney

Phone Number:

Fax Number: 202-456-2710

From: David Halpern

Phone Number: 202 456 6038

NUMBER OF PAGES (INCLUDING COVER SHEET): (5)

Phil,
Per our conversation last Friday
afternoon Re: NAS/NRC Committee
on Climate Change Science Plan

Dave Halpern

THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

COMMITTEE TO REVIEW THE U.S. CLIMATE CHANGE SCIENCE PROGRAM STRATEGIC PLAN

Dr. Thomas E. Graedel (*Chair*)
Yale University
New Haven, CT

Dr. Linda A. Capuano
Honeywell Inc.
San Jose, CA

Dr. Elizabeth Chornesky
University of California, Santa Cruz

Ms. Mary Gade
Sonnenschein, Nath, and Rosenthal
Chicago, IL

Ms. Katharine L. Jacobs
Arizona State Department of Water Resources

Dr. Anthony C. Janetos
H. John Heinz, III Center for Science,
Economics, and the Environment
Washington, DC

Dr. Charles Kolstad
University of California, Santa Barbara

Dr. Diana M. Liverman
University of Arizona

Dr. Jerry D. Mahlman
National Center for Atmospheric Research
Boulder, CO

Dr. Diane McKnight
University of Colorado

Dr. Michael J. Prather
University of California, Irvine

Dr. Eugene Rosa
Washington State University

Dr. William H. Schlesinger
Duke University
Durham, NC

Dr. David Skole
Michigan State University

Dr. Andrew Solow
Woods Hole Oceanographic Institution
Woods Hole, MA

Dr. Robert A. Weller
Woods Hole Oceanographic Institution
Woods Hole, MA

Dr. Steve Wittrig
BP Amoco Chemicals Company
Naperville, IL

NRC Staff:

Dr. Gregory Symmes
Associate Executive Director
Division on Earth and Life Studies

Ms. Kristen Krapf
Staff Officer
Board on Earth Sciences and Resources

Dr. Amanda Staudt
Staff Officer
Board on Atmospheric Sciences and Climate

Ms. Ann Carlisle
Administrative Associate
Polar Research Board

Ms. Elizabeth Galinis
Project Assistant
Board on Atmospheric Sciences and Climate

Mr. Byron Mason
Project Assistant
Ocean Studies Board

Phase II

In the second phase, the committee will provide an overall assessment of the revised (final) plan, with an emphasis on how the plan has evolved in response to NRC and other community input. The committee also will address the following questions related to the processes used to solicit and consider input from the scientific and stakeholder communities throughout the strategic planning process:

- Were the mechanisms for input from the scientific and stakeholder communities throughout the program's strategic planning process adequate?
- Did the format of the workshop promote the open exchange of ideas and suggestions for improvement?
- Was the process used to make decisions on potential changes to the draft plan clearly communicated to workshop participants and others who submitted comments during the public comment period?
- Was this process consistent with generally accepted practices for considering community input during public comment periods?
- What specific improvements should be reflected in future planning efforts for the program?

The results of phase II will be provided in a report to be delivered to the program within 6 months after the revised (final) plan is published.

Draft Timeline for Strategic Plan Review

October-November 2002: Study planning, committee nominations, and selection process
 September 26, 2002: Planning meeting with Jim Mahoney, Richard Moss, Tom Spence
 October 3, 2002: Comments from agencies on proposed statement of task and study timeline delivered to NRC
 October 7, 2002: Agreement between NRC and program on statement of task and study timeline
 October 9, 2002: GBEC approval of statement of task, prospectus
 October-November 2002: Committee appointed (12-15 members)

Phase I

November 11, 2002: Discussion draft of strategic plan available on the web

November 22: Target date for first committee meeting (1-day meeting in DC to meet with agencies/program staff and plan study)
 December 3-5, 2002: Open workshop held in Washington, DC (some members will attend)
 December 6, 2002: Second committee meeting in DC (committee will meet on the 6th to discuss workshop and plan for report writing)
 January 13, 2003: End of post-workshop public comment period (for written comments)
 January 6-17, 2003: Target dates for third committee meeting (2-day writing meeting some time this week)
 February 1, 2003: Draft of first NRC report ready for external review

February 28, 2003: First NRC report on draft strategic plan delivered

Phase II

April 1, 2003: Publication of revised (final) plan (approximate date)
 April 28-May 2, 2003: Target dates for fourth committee meeting (2-day meeting in DC some time this week to meet with Program staff, and begin work on second report)
 June 16-20, 2003: Target dates for fifth committee meeting (2-day writing meeting some time during this week)
 August 2003: Final NRC report enters review
 September, 2003: Response to review, approval, release of final NRC report



Portland Cement Association

TO: Phil Cooney

COMPANY: CEQ

FAX #: 202 456-2710

FROM: Andy O'Hare

DATE: 1/7/03

COMMENTS: At long last. This had a
much longer "gestation" period than I
anticipated.

Regards
Andy

No. of Pages (Incl. Cover Page) 5



Portland Cement Association

Richard C. Creighton

President, Government Affairs

January 7, 2003

The Honorable Spencer Abraham
Secretary
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

The Honorable Christine Todd Whitman
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

The Honorable James L. Connaughton
Chairman
Council on Environmental Quality
722 Jackson Place, N.W.
Washington, DC 20503

Re: U.S. Cement Industry's Voluntary CO₂ Goal and Associated Climate Program

Dear Sirs and Madam:

On behalf of the Portland Cement Association (PCA) I am pleased to share with you the U.S. cement industry's voluntary goal to reduce CO₂ emissions and the program the industry has devised to implement it. PCA strongly believes that sector-specific voluntary efforts are the most effective means of achieving the objective set by the President's climate change proposal. PCA, like the President, agrees that these approaches are far preferable to the economically punitive measures that would have resulted from adoption of the Kyoto Protocol.

PCA is a trade association representing cement companies in the United States. PCA's membership consists of 45 companies operating 101 plants in 35 states, accounting for more than 95 percent of U.S. cement production. Portland cement is the key ingredient in concrete, a building material essential to our nation's infrastructure.

PCA member companies adopted the voluntary goal in July 2001, as part of the association's continuous environmental improvement program. It is a unit-based goal that, like the President's, allows the industry to simultaneously grow and reduce CO₂ emissions as a function of production.

1130 Connecticut Avenue, NW, Suite 1250
Washington, DC 20036-3925
202.408.9494 Fax 202.408.0877
rcreighton@cement.org

www.cement.org

CEQ 003900

January 7, 2003
Page 2

To achieve the goal, the industry has developed a three part program that focuses on the production process, the product cement manufacturers produce, and on how the product is applied. While only efforts undertaken under the first two elements of the program will be used to quantify progress towards achieving the industry goal, the third part of the program has the greatest potential for mitigating climate change. PCA has worked closely with various federal agencies to maximize its potential and plans to continue to do so in the future.

Attached please find a document that briefly summarizes the industry's program. Andy O'Hare or I would be delighted to respond to any questions you may have concerning the industry's program or to provide you with additional information. We both may be reached at (202) 408-9494. PCA looks forward to working with you on this program in the future.

Sincerely,



Richard C. Creighton
President, Government Affairs

U.S. CEMENT INDUSTRY CLIMATE CHANGE PROGRAM PORTLAND CEMENT ASSOCIATION

The U.S. cement industry began seriously studying the issue of climate change in the mid-90s and worked with EPA through the Climate Wise Program to develop a CO₂ emissions protocol and a means by which to record emissions reductions through the DOE 1605 (b) program. The U.S. industry was then able to accurately quantify cement industry CO₂ emissions and to begin a process of examining ways to address them. The product of this assessment culminated in the adoption of a voluntary CO₂ emission reduction goal in July 2001. Similar efforts have since been initiated around the world, resulting in the development of a global cement industry greenhouse gas emissions protocol, prepared under the auspices of the World Business Council on Sustainable Development.

Cement Industry Voluntary Goal: A 10% reduction in CO₂ emissions per ton of cementitious product produced or sold from a 1990 baseline by 2020.

The industry is now implementing a three part program to achieve the goal, as described below.

1. **Process:** reduce emissions through increased efficiency and decreased fuel use.
 - Kiln types: continue conversion from less efficient wet kilns to preheater/precalciner kilns.
 - Demand-side energy management: reduction of electricity and fuel use through the application of more efficient fans, motors, and other items utilized in making cement.
 - Use of alternative fuels and raw materials: use alternatives to conventional fuels and raw materials to reduce greenhouse gas and other pollutant emissions.
2. **Product Formulation:** produce cement using a lower proportion of calcined materials, thereby reducing CO₂ emissions per unit of product.
3. **Product Application:** promote the use of concrete as a climate change solution.
 - Energy-efficient structures: commercial and residential structures built with concrete exterior walls to enhance their energy efficiency.
 - Urban heat island mitigation: light-colored concrete absorbs less and radiates more heat than dark materials, whether on pavement, roofs, or other surfaces, thereby reducing ambient temperatures.

- **Vehicle fuel efficiency:** because of its rigidity, concrete pavement enhances fuel efficiency of vehicles when compared to flexible pavements.¹
- **Lifecycle analysis:** because of the three applications above, and other benefits, cement-based concrete compares favorably to competing products; these results should be taken into account in product-selection guidance.

PCA and/or its member companies have been and continue to be active in international and domestic efforts to measure and reduce greenhouse gases, such as the following efforts:

- The EPA Climate Wise program (now the Energy Star Program)
- The EPA Climate Leaders program
- The EPA Energy Star program
- The Department of Energy 1605(b) Greenhouse Gas Reporting program
- The World Resources Institute/WBCSD GHG Protocol
- The Pew Center on Global Climate Change
- The WWF Climate Savers program
- The World Business Council for Sustainable Development (WBCSD) report on a sustainable cement industry.

¹ A Canadian study showed that trucks driven on concrete achieved roughly 10% more MPG than those driven on asphalt. The greatest improvements were observed in the summer, indicating that the comparative efficiency of driving on concrete roads would be even greater in the United States and other countries that are warmer than Canada.

CEQ 417 PC

-EXECUTIVE OFFICE OF THE PRESIDENT-



COUNCIL ON ENVIRONMENTAL QUALITY

730 Jackson Place, NW
Washington, DC 20503

PHONE: (202) 456-6224
FAX: (202) 456-2710

fax: 586-0329

TO: MARY HUTZLER

FROM: PHIL COONEY

DATE: 1/7/03 PAGES: 2
(INCLUDING COVER SHEET)

COMMENTS: _____

The document(s) accompanying this FAX transmission may contain information, which is confidential and/or sensitive. The information is intended only for use by the individual or entity named on this transmission sheet. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of any action in reliance on the contents of this faxed information is strictly prohibited, and that the documents should be returned to this office immediately. In this regard, if you have received this FAX in error, please notify us by telephone immediately so that we can arrange for the return of the original document(s) to us.

001941

CEQ 003905

CEQ
278 PC



Stephanie Harrington <Stephanie.Harrington@noaa.gov>
01/08/2003 06:25:35 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: January 13 CCSP/SGCR meeting information

I have attached an agenda for the January 13 CCSP key agency representatives meeting from 1:00 to 3:00 p.m. Please note that the meeting location has changed to the CCSP office at 1717 Pennsylvania Ave., Suite 250.

*WGs
- use criteria for CCR1*

In addition, I have attached a memorandum for discussion regarding the next steps in the preparation of the CCSP strategic plan. Please be prepared to discuss this information on Monday.

*WG - things most approp. for CCR1
& propose*

As always, please let me know if you have any questions,
Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944 or 202-419-3487

*Richard Mason
Conover - NCCT 1 director of DOE*

-  - att1.htm
-  - Strategic plan revision 13Jan03.doc
-  - CCSP_SGCR_DRAFT_AGENDA.doc

*Strategic plan
w/analytical agenda*

*retreat
or
blocked shorter meetings
Jan. 27th 30th*

Message Sent To:

- Whohenst <Whohenst@OCE.USDA.gov>
- mleinen <mleinen@nsf.gov>
- neale <neale@serc.si.edu>
- cgroat <cgroat@usgs.gov>
- Watsonhl <Watsonhl@state.gov>
- gasrar <gasrar@hq.nasa.gov>
- "Ari.Patrinis" <Ari.Patrinis@science.doe.gov>
- mmoore <mmoore@osophs.dhhs.gov>
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- Mary Glackin <Mary.Glackin@noaa.gov>
- "Simmons Emmy B." <EmSimmons@usaid.gov>
- David Halpern/OSTP/EOP@EOP

2-5

004315

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gant <gant@niehs.nih.gov>
"vicki.horton" <vicki.horton@noaa.gov>
tspence <tspence@nsf.gov>
"Jack.Kaye" <Jack.Kaye@hq.nasa.gov>
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"scheraga.joel" <scheraga.joel@epa.gov>
mgarcia <mgarcia@usgs.gov>
Anderson Margot <Margot.Anderson@hq.doe.gov>
"Margaret.R.Mccalla" <Margaret.R.Mccalla@noaa.gov>
Gorsevski Virginia <VGorsevski@usaid.gov>
Robert Marlay <Robert.Marlay@hq.doe.gov>
ipo@usgcrp.gov
Debbie Payne <Debbie.Payne@noaa.gov>
Holmes Kathy <Kathy.Holmes@science.doe.gov>

(b)(5)

Jeff & Stephanie

DRAFT AGENDA

CLIMATE CHANGE SCIENCE PROGRAM and
SUBCOMMITTEE ON GLOBAL CHANGE RESEARCH
James R. Mahoney, Chair

Monday January 13, 2003
1:00 p.m. -3:00 p.m.
1717 Pennsylvania Ave, NW
Suite 250

- 1:00 Update on FY 04 budget process (CCRI), preliminary discussion of proposed coordination activities for FY05 budget initiatives (CCRI), and plans for FY04 budget rollout (Amthor, Wuchte (tentative))
- 1:30 Process for preparing *Our Changing Planet FY04* [Documentation: draft production schedule and responsibilities] (Piltz, Dokken)
- 1:50 Reflections on CCSP workshop and future program challenges (Mahoney)
- 2:10 Process for revision of strategic plan (Moss)
- 2:50 Other business
 - Time and date for next meeting
- 3:00 Adjourn

Jeff

(b)(5)

gwin

COX MEET
1... MEET



National Rural Electric Cooperative Association

A Touchstone Energy Cooperative

4301 Wilson Boulevard
Arlington, Virginia 22203-1860
Telephone: (703) 907-5500
TT-(703) 907-5957
www.nreca.org

*Release
this
1/10 letter
is on
website*

FAX Transmittal Sheet

Environmental Affairs DEPARTMENT
FAX No.: (703) 907-5599

Date: 1/10/2003

Time: _____

SEND TO: Phil Cooney

COMPANY: CEQ

FAX NUMBER: 202-456-6546

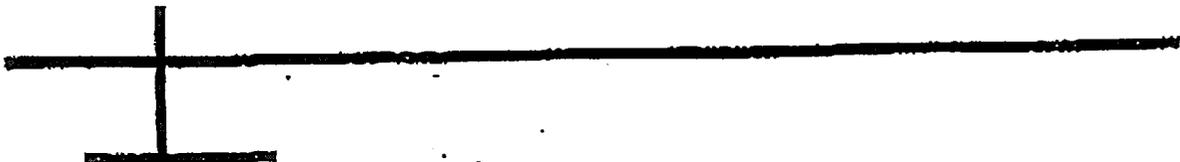
FROM: Carol Whitman

PHONE NUMBER: 703-907-5790

MESSAGE: Business Challenge: ltr

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National Rural Electric Cooperative Association

A Touchstone Energy Cooperative

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Arlington, Virginia 22203-1860
Telephone: (703) 907-5500
TT-(703) 907-5957
www.nreca.org

FAX Transmittal Sheet

Environmental Affairs DEPARTMENT
FAX No.: (703) 907-5599

Date: 1/10/2003

Time: _____

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FROM:

Carol Whitman

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MESSAGE:

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www.nreca.org

January 10, 2003

The Honorable Spencer Abraham
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Secretary Abraham:

Last year President Bush announced a new approach to the challenge of climate change—an approach that is long-term, emphasizes economic growth, and takes advantage of American technology, innovation, and efficiency. The President set an environmental goal for economic growth, to reduce the ratio of U.S. greenhouse gas emissions to economic output by 18 percent over the next 10 years. As part of his plan for meeting that goal, the President challenged American businesses to reduce the greenhouse gas intensity of their operations and emissions.

The National Rural Electric Cooperative Association (NRECA), representing more than 900 electric cooperatives serving 36 million people in 47 states, supports the President's climate policies and the call for *voluntary* actions to slow the growth of greenhouse gas emissions. As a vital part of the electricity sector, cooperatives deliver 9 percent of the total kilowatt-hours sold in the U.S. and generate 5 percent of the electricity produced each year. Cooperatives, as part of the electricity sector, can contribute to the President's goal by increasing the greenhouse gas efficiency of their operations.

First, in order to formulate a sector-wide approach to President Bush's Global Climate Change Initiative, NRECA participates in the Electric Power Industry Climate Initiative (EPICI), a coalition of seven electric power groups. EPICI has developed a voluntary climate partnership with the U.S. Department of Energy (DOE) called *Power Partners*. *Power Partners* includes a range of actions for the short, medium and long terms including a *Power Partners Resource Guide* to enhance the efficiency and reduce emissions of electricity generation, transmission and distribution, several carbon sequestration initiatives and long-term research and development. All generation and transmission cooperatives participate in *Power Partners*.

Looking toward the future, electric cooperatives are also investing in the development of clean coal technologies. While half of the nation's overall electric generation is coal-based, more than two-thirds of the electric cooperatives' generation is from coal. Since

The Honorable Spencer Abraham
January 10, 2003
Page 2

fossil fuels will remain essential to electricity generation for the foreseeable future, new "near-zero emission" technologies are needed. Electric cooperatives recognize the importance of accelerating the development of affordable technologies and are working with *Power Partners* and the Electric Power Research Institute (EPRI) to evaluate carbon capture and sequestration.

Power Partners will help to focus the electric sector's efforts to increase emissions efficiency as its contribution to the President's goal. As part of EPICI, NRECA will pursue a Memorandum of Understanding with DOE for *Power Partners* over the next several months to formalize this public-private partnership.

Second, in addition to *Power Partners*, NRECA is developing a Memorandum of Understanding with the U.S. Department of Agriculture (USDA) during 2003 to identify opportunities to reduce greenhouse gas emissions. Potential areas for cooperation include the development of renewable electricity, e.g., wind, solar, biomass (cofiring with coal and waste-to-energy including landfill methane, use of methane digesters for manure, etc.), continued development and testing of new technologies such as fuel cells and microturbines, and the use of biofuels (bioethanol and biodiesel) and other bioproducts. NRECA and USDA will look for ways to remove technical and market barriers to the use of renewables for electricity generation in rural areas and commercialize other emission-efficient technologies.

Third, electric cooperatives are also committed to expanding their research and development of new electric technologies. They have recently produced *Electric Technology Cooperative Solutions*, a strategic vision and roadmap for cooperatives and consumer-members. Electric cooperatives spend more than \$15 million annually on the research and development of new technologies that produce, deliver, or more efficiently use energy at rural electric consumers' homes and businesses. For example, through the work of the Cooperative Research Network, a consortium of electric cooperatives dedicated to research, and the commitments by cooperatives to EPRI, cooperatives have been successful in developing tools and technologies that have resulted in the following successes:

- **Distribution System Line Losses.** Resistance to the flow of electrical current in the distribution and transmission system causes a portion of energy, typically 7 percent, to be lost in the form of heat, resulting in higher emissions for the same amount of delivered electricity. Data from the USDA's Rural Utilities Service (RUS), show that cooperative distribution system line losses were consistently around 6% from 1994 to 2000, well below the industry norm. In fact, RUS reported cooperative line losses at 4.96% during 2001. While electric cooperatives serve 12% of all electric consumers, they maintain nearly half (2.3 million miles) of the nation's distribution miles of line. With their consumers widely dispersed (6.6 consumers per mile compared to 34 for investor-owned

The Honorable Spencer Abraham

January 10, 2003

Page 3

utilities and 44 for municipals), cooperatives have maintained a high degree of distribution efficiency under very challenging conditions.

- **Load Management.** Load management technologies allow generation companies to better manage the timing of their customers' energy use, and thus help reduce the large discrepancy between peak and off-peak demand. Although this approach does not reduce the overall consumption of electricity, it can reduce the need to build new power plants simply to serve customers during periods of peak demand and reduces emissions associated with using fossil fuels to meet those peak electrical demands. The nation's electric cooperatives have a strong commitment to load management devices and control infrastructure. Energy Information Administration (EIA) data for 2000 show that cooperatives have more than 2,500 MW under control. That represents more than 25% of all actual peak reduction MW for the U.S. Because 60% of cooperative sales are to residential consumers, much of their load management activity has been targeted to residential load reduction. There the cooperative contribution has been even more dramatic, with more than 1,500 megawatts under control, more than 40% of all residential actual peak reduction MW for the nation.
- **Renewable Energy.** Nearly a quarter of all distribution cooperatives currently offer Green Power from wind and biomass to their consumer-members. This number has grown dramatically due to consumer demand. Because cooperatives are owned by the consumers they serve and are part of their local communities, they will continue to respond promptly to consumer demands for renewable energy.

Lastly, in addition to the commitments with DOE through *Power Partners*, the Memorandum of Understanding with USDA and the continued expenditure of research and development dollars for electricity efficiency technologies, electric cooperatives are uniquely positioned to pair U.S. electric cooperatives with cooperatives around the world to increase energy efficiency. NRECA International—a non-profit international program that provides technical assistance to developing countries for clean, efficient electrification—is investigating ways to reduce greenhouse gas emissions overseas.

The International Program teams U.S. electric cooperatives with electric cooperatives in countries such as the Philippines, India, Costa Rica, and Bolivia to identify and implement opportunities for creditable projects that reduce or avoid greenhouse gas emissions. The most promising efforts involve energy loss reduction and efficiency improvements on cooperative distribution systems; fuel substitution projects such as hydropower plants, wind, solar and other renewables to reduce cooperative dependency on thermal power; carbon sequestration in tropical areas; and energy conservation.

The Honorable Spencer Abraham

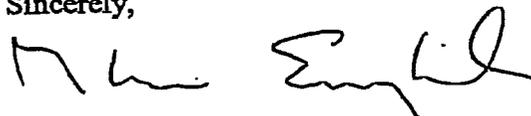
January 10, 2003

Page 4

NRECA believes that credible, voluntary actions can increase the economic efficiency of business operations, strengthen U.S energy independence, and enhance our environment. The President's plan to provide incentives for investments in clean technologies, increased conservation and energy efficiency can help electric cooperatives maintain affordable and reliable electric service for our consumers. Policies that provide incentive for *all* electricity generators to develop clean energy will move America toward cleaner, more efficient electricity generation.

NRECA looks forward to working with you on this important energy and environment issue.

Sincerely,



Glenn English
Chief Executive Officer

cc: The Honorable Ann Veneman
Secretary, U.S. Department of Agriculture

The Honorable James Connaughton
Chairman, White House Council on Environmental Quality

0059_f_uq2zc003_ceq

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Stephanie Harrington <Stephanie.Harrington@noaa.gov> (Stephanie Harrington <Stephanie.Harrington@noaa.gov> [UNKNOWN])

CREATION DATE/TIME:14-JAN-2003 12:51:40.00

SUBJECT:: Next steps for strategic plan revisions - meeting date possibilities

TO:EmSimmons@usaid.gov (EmSimmons@usaid.gov [UNKNOWN])
READ:UNKNOWN

TO:andrewj@onr.navy.mil (andrewj@onr.navy.mil [UNKNOWN])
READ:UNKNOWN

TO:Erin Wuchte (CN=Erin Wuchte/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:ari.patrinis@science.doe.gov (ari.patrinis@science.doe.gov [UNKNOWN])
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TO:watsonhl@state.gov (watsonhl@state.gov [UNKNOWN])
READ:UNKNOWN

TO:neale@serc.si.edu (neale@serc.si.edu [UNKNOWN])
READ:UNKNOWN

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TO:gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])
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TO:cgroat@usgs.gov (cgroat@usgs.gov [UNKNOWN])
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CC:turekaianvc@state.gov (turekaianvc@state.gov [UNKNOWN])
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CC:Paul T. Anastas (CN=Paul T. Anastas/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

CC:Holmes Kathy <Kathy.Holmes@science.doe.gov> (Holmes Kathy <Kathy.Holmes@science.doe.gov> [UNKNOWN])
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Page 1

003223

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CC:Robert Marlay <Robert.Marlay@hq.doe.gov> (Robert Marlay
<Robert.Marlay@hq.doe.gov> [UNKNOWN])
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<VGorsevski@usaid.gov> [UNKNOWN])
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<Margot.Anderson@hq.doe.gov> [UNKNOWN])
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CC:"James.R.Mahoney" <James.R.Mahoney@noaa.gov> ("James.R.Mahoney"

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<James.R.Mahoney@noaa.gov> [UNKNOWN])
READ:UNKNOWN

TEXT:

The next steps for the revision of the strategic plan will be two afternoon meetings for the lead agency CCSP representatives to discuss the revision strategy. We expect to send you the full set of consolidated comments on the plan by COB January 22 so that you have time to review them before the first meeting.

Please let me know your availabilities for the following dates ASAP. We will try to accomodate as many of your schedules as possible.

Friday, January 24, 2-5
Monday, January 27, 2-5
Tuesday, January 28, 2-5
Wednesday, January 29, 1-4
Thursday, January 30, 1-4
Friday, January 31, 1-4

Thanks,
Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944 or 202-419-3487

0077_f_bk72d003_ceq

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Stephanie Harrington <Stephanie.Harrington@noaa.gov> (Stephanie Harrington
<Stephanie.Harrington@noaa.gov> [UNKNOWN])

CREATION DATE/TIME:16-JAN-2003 13:53:35.00

SUBJECT:: Meeting dates for strategic plan revisions

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READ:UNKNOWN

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TO:Anderson Margot <Margot.Anderson@hq.doe.gov> (Anderson Margot
<Margot.Anderson@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:David Halpern (CN=David Halpern/OU=OSTP/O=EOP@EOP [OSTP])
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TO:linda.lawson@ost.dot.gov (linda.lawson@ost.dot.gov [UNKNOWN])
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READ:UNKNOWN

TO:mmoore@osophs.dhhs.gov (mmoore@osophs.dhhs.gov [CEA])

Page 1

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READ:UNKNOWN

TO:gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

TO:cgroat@usgs.gov (cgroat@usgs.gov [UNKNOWN])
READ:UNKNOWN

TO:whohenst@OCE.USDA.gov (whohenst@OCE.USDA.gov [UNKNOWN])
READ:UNKNOWN

CC:"White Deborah J." <djwhite@nsf.gov> ("White Deborah J." <djwhite@nsf.gov> [UNKNOWN])
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READ:UNKNOWN

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READ:UNKNOWN

CC:mgarcia <mgarcia@usgs.gov> (mgarcia <mgarcia@usgs.gov> [UNKNOWN])

Page 2

CEQ 003923

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<Jerry.Elwood@science.doe.gov> [UNKNOWN])
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CC:"James.R.Mahoney" <James.R.Mahoney@noaa.gov> ("James.R.Mahoney"
<James.R.Mahoney@noaa.gov> [UNKNOWN])
READ:UNKNOWN

TEXT:

Based on the availabilities I received, we will hold the next CCSP
discussions on the strategic plan revisions:

Monday, January 27, 1-4:30 pm
Wednesday, January 29, 1-4:30 pm

Location to be determined.

Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944

CEQ 77
PC



EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY

1/17/03

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000709

CEQ 003926

CEQ 21 GRC

17 January, 2003

Sandy MacCracken.
United States Climate Science Program
1717 Pennsylvania Avenue, NW
Suite 250
Washington, DC 20006

**Docket ID # 030102001-3001-01
FILED ELECTRONICALLY**

Re: Comments on NOAA/USCCSP's "Strategic Plan for the Climate Science Program"

I. Background Information

Name(s): Christopher C. Horner
Organization(s): Competitive Enterprise Institute (CEI)
Mailing Address(es): 1001 Connecticut Avenue NW Suite 1250 Washington, DC 20036
Phone(s): 202-331-2260
Fax: 202-331-0640
E-mail: CHorner@CEI.org
Area of Expertise: Federal Data Quality Act (FDQA), agency adherence to scientific norms.

**II. Overview Comments on Chapter 1: Introduction Climate and Global Change:
Improving Connections Between Science and Society**

First Overview Comment: CCSP's document asserts "sound science" principles once presumed in endeavors such as this, though grossly abused in recent years, most egregiously in the "National Assessment on Climate Change" (NACC). These "Guidelines" must more strongly assert adherence to, and the requirement that any product meet the requirements of, the Federal Data Quality Act (FDQA)(enacted as Section 515(a) of the FY '01 Treasury and General Government Appropriations Act (P.L. 106-554; H.R. 5658). They must be stated more firmly, and provide an internal enforcement mechanism, as well as review and appeal mechanisms pursuant to the White House Office of Management and Budget's (OMB) "government-wide" Interim Final Guidelines for agency compliance with FDQA requirements (66 FR 49718), finalized by OMB's January 3, 2002 Final Guidance (67 FR 369), providing a strong foundation for improving the overall quality of information which the federal government disseminates to the public. Past USGCRP efforts manifested flagrant violation of these basic standards, as

detailed in this Comment, and which CCSP must avoid including through instituting advance, FDQA-compliant precautions.

**III. Specific Comments on Chapter 1: Introduction Climate and Global Change:
Improving Connections Between Science and Society**

“Guiding Principles for CCSP”

All the following comments relate to Page 11, lines 5-24, of document as found at <http://www.climate-science.gov/Library/stratplan2003/ccspstratplan2003-11nov2002.pdf>

Specific Comment: CCSP’s document asserts “sound science” principles once presumed in endeavors such as this, though grossly abused in recent years, most egregiously in the “National Assessment on Climate Change” (NACC). Replication of this is impermissible as CCSP must comply with FDQA’s requirements as set forth herein. CCSP’s principles are as follow:

“To fulfill its mission as the publicly sponsored research program addressing climate change 5 issues for the United States, the CCSP must continuously adhere to three guiding principles that 6

underpin the objectivity, integrity, and usefulness of its research and reporting: 7

• **The scientific analyses conducted by the CCSP are policy relevant but 8 not policy driven.** CCSP scientific analyses (including measurements, models, 9 projections, and interpretations) are directed toward continually improving our 10 understanding of climate, ecosystems, land use, technological changes, and their 11 interactions. In developing projections of possible future conditions, the CCSP 12 addresses questions in the form of “If..., then...” analyses. Policy and resource 13 management decisions are the responsibility of government officials who must integrate 14 many other considerations with available scientific information. 15

• **CCSP analyses should specifically evaluate and report uncertainty.** All 16 of science, and all decisionmaking, involves uncertainty. Uncertainty need not be a 17 basis for inaction; however, scientific uncertainty should be carefully described in CCSP 18 reports as an aid to the public and decisionmakers. 19

• **CCSP analyses, measurements, projections and interpretations should 20 meet two goals: scientific credibility and lucid public communication.** 21 Scientific communications by the CCSP must maintain a high standard of methods, 22 reporting, uncertainty analysis, and peer review. CCSP public reports must be carefully 23 developed to provide objective and useful summaries of findings. 24” (emphases supplied)

These “Guidelines” must more strongly assert adherence to, and the requirement that any product meet the requirements of, the Federal Data Quality Act.

Specifically, consider how past USGCRP “climate science” has disregarded such basic guidelines presumed in any credible, apolitical research and analytical product rising to the level of “science”.

CEI has previously provided USGCRP, and NOAA, a detailed explanation of I) relevant issues relating to all agencies promulgating Data Quality guidelines, incorporating a selection of how various proposed agency guidelines address these important topics, including a) an example of a satisfactory agency proposal on the issue, if any, and the reasoning for that conclusion, & b) numerous unsatisfactory examples of current agency proposals; and II) a **direct example of information currently disseminated by Commerce/ NOAA violating FDQA, OMB's "government-wide" guidelines and any Commerce/NOAA guidelines which could be acceptable under FDQA.**

Regarding the latter, in sum, due to a failure to institute stronger protections than those provided, e.g., in "III. Guiding Principles for CCSP", politics was permitted to infect an expensive and important scientific undertaking, leading Commerce and NOAA to disseminate significant data that fails the test set forth by FDQA and OMB's government-wide guidelines. Any Commerce/NOAA "guiding principles" that would permit the continued dissemination of such data, as exemplified by but in no way limited to the example provided, *infra*, cannot withstand scrutiny as acceptable under either FDQA's or OMB's requirements.

CEI considers CCSP's "Guiding Principles" to rise to the level of FDQA-covered "agency guidelines" regarding data quality. OMB's interagency Data Quality guidelines implement section 3504(d)(1) of the Paperwork Reduction Act (PRA). 44 U.S.C. § 3516 note. Section 3504(d)(1) requires that "with respect to information dissemination, the [OMB] director shall develop and oversee the implementation of policies, principles, standards, and guidelines to apply to Federal agency dissemination of public information, regardless of the form or format in which such information is disseminated...." 44 U.S.C. § 3504(d)(1). All federal agencies subject to the PRA must comply with OMB's interagency Data Quality guidelines when they issue their own Data Quality guidelines. 44 U.S.C. §§ 3504(d)(1); 3506(a)(1)(B); 3516 note. Congress clearly intended OMB's Data Quality guidelines to apply to all information agencies subject to the PRA in fact make public.

Further, the process envisioned by CCSP triggers the FDQA consideration of Third-Party Submissions of Data to An Agency. Much of the information disseminated by federal agencies is originally developed and submitted by states or private entities. In addition, federal agencies often disseminate research from outside parties, some of which is funded by the agency.

Congress clearly intended the Data Quality guidelines to apply to all information that agencies in fact make public. OMB's guidelines reiterate this (see "Case Study" immediately below). Consequently, all third-party information that an agency disseminates is subject to the Data Quality guidelines.

Where an agency does not use, rely on, or endorse third-party information, but instead just makes it public, the agency might claim it should not have the initial burden of ensuring that the

information meets the quality, objectivity, utility and integrity standards required by the Data Quality guidelines. The information remains subject to the Data Quality requirements and correction process through administrative petitions by third parties.

Yet this claim offers a distinction without a difference because when an agency uses, relies on, or endorses third-party information, the agency itself must have the burden of ensuring that the information meets the required quality, objectivity, utility, and integrity standards.

CCSP's process also envisions use of Third-Party Proprietary Models. Federal agencies often use various models developed by third parties (often government contractors) to formulate policies based upon influential scientific information. The third-party models are sometimes asserted to be confidential and proprietary. Worse, agencies use the involvement of third-party proprietary information to justify withholding related, non-proprietary data, access to which is indispensable to assessing the quality of modeled and other data.

This issue does not involve the concerns that arise when regulated entities are required to submit confidential or proprietary data to an agency pursuant to a regulatory program. Instead, this issue is limited to situations where any agency and a contractor agree to use a model on a proprietary basis to develop influential scientific information.

OMB's interagency Data Quality guidelines require that influential scientific information be reproducible. This reproducibility standard generally requires that the models used to develop such information be publicly available. The OMB guidelines further explain that when public access to models is impossible for "privacy, trade secrets, intellectual property, and other confidentiality protections, an agency "shall apply especially rigorous robustness checks to analytic results and documents what checks were undertaken." 67 F.R. 8452, 8457.

CASE STUDY:

ABUSE OF THIRD PARTY MODEL AND "PROPRIETARY" CLAIM

Environmental Protection Agency

CEI is increasingly concerned about the "third party data (model)" practice that government agencies knowingly or otherwise employ in frustration of public access to important data. All agencies now have a duty to ensure this practice ceases. By such practice we refer to an agency, say EPA, farming out, *e.g.*, an economic assessment, using a proprietary model then refusing to provide not the model itself but other related data (*e.g.*, assumptions, often provided in whole or part by the agency) critical to assessing the value of such an analysis, on the basis that the information is "proprietary".

This claim is particularly vexing in cases such as EPA's development of proposals for the President's "multi-pollutant" recommendation. In that context the Administration testified to Congress that legislation must meet its criteria, established by such an analysis. There is no way

to properly assess whether proposed legislation meets this test, or the validity of that test, when parties cannot view the assumptions dictating the purported benchmark against which bills will be measured.

As an example, CEI have already requested, under the Freedom of Information Act (FOIA), those assumptions employed by/on behalf of EPA in the product underlying the following statement excerpted from Assistant EPA Administrator Jeffrey Holmstead's written testimony before the Senate Environment and Public Works Committee on November 1, 2001:

"We have not modeled the specific provisions in S. 556, but useful information is provided by comparing the analyses EPA and EIA conducted to respond to a request from Senators Smith, Voinovich and Brownback with the analyses responding to a request from Senators Jeffords and Lieberman. In the Smith/ Voinovich/Brownback analysis, when we analyzed SO₂ and NO_x reduction levels similar to S. 556, mercury reduction levels more modest than S. 556 and no CO₂ reductions, we did not find significant impacts on coal production or electricity prices."

It is CEI's understanding that EPA requested its outside contractor, ICF, assume unrealistic scenarios regarding the cost and supply of natural gas, or at minimum scenarios running strongly counter to those which ICF itself touts on its own website as likely under any carbon dioxide suppression scheme. CEI expressed our concerns to Mr. Holmstead, who orally assured us that his office would gladly provide us such information even without invoking FOIA. Notwithstanding the seriousness of this proposal and that assurance, it is several months since this assurance and this very straightforward request for information remains unsatisfied, under FOIA or otherwise. This leads us to believe that the Administration is using such a tactic, of farming out studies, to avoid scrutiny of its proposals.

Such withholding is made even more troubling by EPA refusing access to data described and/or provided by EPA to a contractor; it does not request any such contractor's "model" or other property reasonably subject to "proprietary" claims. By such practice an agency avoids releasing purported proprietary information that it is obligated to refrain from withholding. Still, we are told by certain Administration officers, and it was alluded to by Mr. Holmstead, that the basis for such refusal is a purported "proprietary" nature of the data.

We believe this practice makes for terrible policy and is unacceptable, even without, but certainly given, FDQA's requirements. OMB's January 3 publication of "Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility and Integrity of Information Disseminated by Federal Agencies" (Federal Register, Vol. 2, No. 67, p. 369)(see <http://frwebgate3.access.gpo.gov/cgi-bin/waisgate.cgi?WAIISdocID=43070613463+0+2+0&WAISaction=retrieve>) assert:

"As we state in new paragraph V.3.b.ii.B.II, 'In situations where public access to date [sic] and methods will not occur due to other compelling interests, agencies shall apply especially rigorous robustness checks to analytic results and document what checks were

undertaken. Agency guidelines *shall*, however, ***in all cases, require a disclosure of the specific data sources*** that have been used and the specific quantitative methods ***and assumptions that have been employed.***” (emphasis added)(p. 374).

We read this to mean that the Office of Management and Budget will refuse to consider any assumptions used in, e.g., the ICF or other model(s) as proprietary. We also read this to indicate OMB recommends other agencies act similarly in promulgating their own required guidelines. That is, in the name of transparency and reproducibility Congress and OMB have preemptively addressed certain materials requiring disclosure, such that denial under FOIA, privacy agreements, or otherwise is not supportable.

Given that it appears there would not exist any reason, proprietary or otherwise, to refuse the public access to the requested assumptions, we hope OMB and Commerce/NOAA enforce this position at every opportunity, and immediately encourage Commerce/NOAA to make a prohibition against using such tools as barriers to public access to data in its FDQA guidelines. Clearly, if it appears even one agency continues to use such a tactic to shield data on a matter of such major economic significance, Congress surely would intervene and prohibit such outside contracting, period. That is a result that appears easily avoidable, and indeed proscribed by FDQA’s requirements.

CCSP must also consider the FDQA requirements of “objective” and “unbiased” information, an error committed on a gross scale in the first, incomplete attempt at a National Assessment on Climate Change. The Data Quality Act requires agencies to issue guidelines ensuring and maximizing the “objectivity” of all information they disseminate. The OMB guidelines implementing the legislation define “objectivity,” and that definition includes a requirement that information be “unbiased” in presentation and substance. “Objectivity,” along with “unbiased,” is correctly considered to be, under the OMB guidelines, an “overall” standard of quality. 67 Fed. Reg. 8452, 8458. However, the OMB guidelines do not provide any explanation of how to eliminate bias from risk assessment.

For many years, risk assessments conducted by EPA and other federal environmental agencies have been criticized for being biased by the use of “conservative,” policy-driven, “default assumptions”, inferences, and “uncertainty factors” in order to general numerical estimates of risk when the scientific data do not support such quantitation as accurate. When such numerical assumptions are presented in any agency risk characterization, it is likely that members of the public who are unfamiliar with how the agency arrived at such numbers believe that the numbers are based on “sound science.” In actuality, the risk numbers are a result of co-mingling science with policy bias in a manner such that they cannot be disentangled. The question is whether the proposed agency guidelines have attempted to address this issue and how.

EXAMPLE OF CURRENTLY DISSEMINATED INFORMATION FAILING ANY REASONABLE INTERPRETATION OF FDQA/OMB REQUIREMENTS

For the reasons detailed, *infra*, to the extent that CCSP [Commerce/NOAA] and/or any covered agency cites, refers or links to, or otherwise disseminates the following product of, *inter alia*, the White House Office of Science and Technology Policy, it is in violation of FDQA. Further, to the extent any Commerce/NOAA guidelines pursuant to OMB's FDQA guidelines permitting continued dissemination of this product, the first National Assessment on Climate Change ("National Assessment") (<http://www.usgcrp.gov/usgcrp/nacc/default.htm>), that guideline is unacceptable under the Federal Data Quality Act (FDQA).

The above-described and other failings of various draft FDQA guidelines that, facially, would arguably permit continued dissemination of such inappropriate data therefore must be corrected if they are to survive challenge as violative of FDQA. These mistakes must be avoided in future USGCRP/CCSP efforts.

Specifically, and as detailed below, FDQA prohibits – and therefore, Commerce/ NOAA's FDQA guidelines must prohibit -- dissemination of the first attempted National Assessment (NACC) – or any successor document or document purporting to “complete” the first NACC” if produced with the same flaws -- for the failure to satisfy the data quality requirements of “objectivity” (whether the disseminated information is presented in an *accurate, clear, complete* and *unbiased* manner and is as a matter of substance *accurate, reliable* and *unbiased*), and “utility” (the *usefulness* of the information to the *intended users* (per the US Global Change Act of 1990, these are Congress and the Executive Branch). See 67 FR 370. As the statutorily designated steering document for policymaking, NACC qualifies as “influential scientific or statistical information”, therefore it must meet a “reproducibility” standard, setting forth transparency regarding data and methods of analysis, “as a quality standard above and beyond some peer review quality standards.”

The reasons, as detailed, *infra*, include NACC's inappropriate use of computer models and data. Further, in developing the published version of NACC, the US Global Change Research Program (USGCRP) also failed to perform the necessary science underlying regional and sectoral analyses that, as Congress notified USGCRP at the time, was a condition precedent to the release of any National Assessment (even a draft). FDQA ratifies those objections, and is violated by continued dissemination of this product by any federal agency.

Additional rationale necessitating a prohibition on further NACC dissemination is provided by an extensive record obtained through the Freedom of Information Act (FOIA), that the purported internal “peer review” of the draft NACC did not in fact occur (this record also ratifies the inappropriate use of computer models, as also detailed). As the obtained documents demonstrate, commenting parties expressly informed USGCRP that they were rushed and as such were not given adequate time for substantive review or comment. USGCRP published and continues to disseminate the product nonetheless, as do all agencies such as Commerce/NOAA which reference, cite, link or otherwise disseminate NACC.

All of these failings ensure that dissemination of NACC violates FDQA's requirement,

manifested in OMB's Guidelines and as necessarily manifested by Commerce/NOAA's final guidelines, that data disseminated by Federal Agencies meet standards of quality as measured by specific tests for objectivity, utility and integrity.

As you are also aware and as reaffirmed by OMB in its FDQA Final Guidance, though Commerce/NOAA is only now developing agency-specific guidelines and mechanisms, for complaints invoking OMB's Guidelines in the interim Commerce/NOAA should already have in place requisite administrative mechanisms for applying OMB's standards.

I. FDQA Coverage of the NACC

Be it as "third party" data or otherwise, NACC is inescapably covered by FDQA when disseminated by any other Federal Agency. First, it is noteworthy that, whatever the status of the governmental office produced NACC, as directed by the Executive Office of the President (EOP), the United States Global Change Research Program (USGCRP), producer of the National Assessment on Climate Change (NACC or Assessment) is subject to the Federal Data Quality Act (FDQA). FDQA covers the same entities as the Paperwork Reduction Act (44 U.S.C. Sections 3501 *et seq.*; see esp. 44 U.S.C. 3502(1)).

By statute the President serves as Chairman of the National Science and Technology Council ("NSTC"), operating under the White House Office of Science and Technology Policy ("OSTP"), and which has under its authority the Committee on Environment and Natural Resources ("CENR") (15 U.S.C. 2932 (originally "Committee on Earth and Environmental Sciences")). All of these offices are therefore EOP entities, subject to PWRA, thus FDQA.

Per 15 U.S.C. 2934 the President, as Chairman of the Council, shall develop and implement through CENR a US Global Change Research Program. The Program shall advise the President and Congress, through the NACC, on relevant considerations for climate policy. Though the composite USGCRP is an "interagency" effort staffed in great part by seconded employees from federal agencies, it remains under the direction of the President and is therefore a "covered agency" pursuant to 44 U.S.C. 3502(1).

Collectively and pursuant to statutory authority, under the direction of these Executive offices the USGCRP directed an effort statutorily dedicated in part to studying the state of the science and its uncertainties surrounding the theory of "global warming" or "climate change," producing a National Assessment on Climate Change ("NACC"). **Though originally produced prior to FDQA, the data asserted by the NACC (issued in final in December 2000; see <http://www.usgcrp.gov/usgcrp/nacc/default.htm>), as current or continued dissemination is subject to the requirements of the Federal Data Quality Act.**

II. Development of NACC

The Assessment was produced as follows:

1. Pursuant to and/or under the auspices of the Global Change Research Act of 1990, 15 U.S.C. 2921, *et seq.*, USGCRP is assigned the responsibility of producing a scientific assessment, particularly that which is at issue in this Petition, as follows:

“On a periodic basis (not less frequently than every 4 years), the Council, through the Committee, shall prepare and submit to the President and the Congress an assessment which –

- (1) integrates, evaluates, and interprets the findings of the [USGCR] Program and discusses the scientific uncertainties associated with such findings;
 - (2) analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; and
 - (3) analyzes current trends in global change both human-induced (sic) and natural, and projects major trends for the subsequent 25 to 100 years.” (15 U.S.C. 2934).
2. The document at issue in this Petition, the “First National Assessment on Climate Change,” disseminates data rising to the requisite FDQA levels of “quality”, as described herein.
 3. USGCRP’s surge to release a flawed, partial, and partially unauthorized, report came despite requests of lawmakers and outside interests concerned with the issues at hand, to withhold releasing a such a document lacking particular required scientific foundations, in violation of several laws and public policy.

III. The Assessment violates the requirements of the FDQA in the following ways:

1. NACC Relies Upon and Promotes Improper Use of Computer Model Data

For the following reasons, NACC violates FDQA’s “objectivity” and “utility” requirements. As “influential scientific or statistical information”, NACC also fails for these reasons its “reproducibility” standard, setting forth transparency regarding data and methods of analysis, “a quality standard above and beyond some peer review quality standards.”

First, on behalf of this petition, Patrick Michaels, Professor of Environmental Sciences at University of Virginia, excerpts from his review of the NACC dated and submitted to USGCRP August 11, 2000, detailing concerns noted above that place the NACC in violation of FDQA. Where appropriate, additional *explanatory text* is included. USGCRP made no apparent

alterations of the original text in response to these comments, therefore the comments apply to NACC as disseminated.

“August 11, 2000...”

“The essential problem with the USNA [*elsewhere cited in these FDQA Comments as the NACC*] is that it is based largely on two climate models, neither one of which, when compared with the 10-year smoothed behavior of the lower 48 states (a very lenient comparison), reduces the residual variance below the raw variance of the data. The one that generates the most lurid warming scenarios—the Canadian Climate Centre (CCC) Model—produces much larger errors than are inherent in the natural noise of the data. That is a simple test of whether or not a model is valid...and both of those models fail. All implied effects, including the large temperature rise, are therefore based upon a multiple scientific failure. The USNA’s continued use of those models and that approach is a willful choice to disregard the most fundamental of scientific rules. (And that they did not find and eliminate such an egregious error is testimony to grave bias). For that reason alone, the USNA should be withdrawn from the public sphere until it becomes scientifically based.”

Explanatory text: *The basic rule of science is that hypotheses must be verified by observed data before they can be regarded as facts. Science that does not do this is “junk science”, and at minimum is precisely what the FDQA is designed to bar from the policymaking process.*

The two climate models used in the NACC make predictions of U.S. climate change based upon human alterations of the atmosphere. Those alterations have been going on for well over 100 years. Do the changes those models “predicted” for U.S. climate in the last century resemble what actually occurred?

This can be determined by comparison of observed U.S. annual temperature departures from the 20th century average with those generated by both of these models. It is traditional to use moving averages of the data to smooth out year-to-year changes that cannot be anticipated by any climate model. This review used 10-year running averages to minimize interannual noise.

The predicted-minus-observed values for both models versus were then compared to the result that would obtain if one simply predicted the average temperature for the 20th century from year to year. In fact, both models did worse than that base case. Statistically speaking, that means that both models perform worse for the last 100 years than a table of random numbers applied to ten-year running mean U.S. temperatures.

There was no discernible alteration of the NACC text in response to this fatal flaw. However, the NACC Synthesis Team, co-chaired by Thomas Karl, Director of the National Climatic Data Center, took the result so seriously that they commissioned an independent replication of this test, only more inclusive, using 1-year, 5-year, 10-year and 25-year running means of the U.S. annual temperature. This analysis verified that in fact both models performed no better than a table of random numbers

applied to the U.S. Climate Data. Mr. Karl was kind enough to send the results to this reviewer.

“...the problem of model selection. As shown in Figure 9.3 of the Third Assessment of the United Nations Intergovernmental Panel on Climate Change, the behavior of virtually every General Circulation Climate model (GCM) is the production of a linear warming, despite assumptions of exponential increases in greenhouse forcing. In fact, only one (out of, by my count, 26) GCMs produces a substantially exponential warming—the CCC model [one of the two used in the NACC]. Others may bend up a little, though not substantially, in the policy-relevant time frame. The USNA specifically chose the outlier with regard to the mathematical form of the output. No graduate student would be allowed to submit a thesis to his or her committee with such arrogant bias, and no national committee should be allowed to submit such a report to the American people.

Even worse, the CCC and Hadley data were decadal smoothed and then (!) subject to a parabolic fit, as the caption for the USNA’s Figure 6 makes clear. That makes the CCC even appear warmer because of the very high last decadal average.

One of the two models chosen for use in the USNA, the Canadian Climate Center (CCC) model, predicts the most extreme temperature and precipitation changes of all the models considered for inclusion. The CCC model forecasts the average temperature in the United States to rise 8.1°F (4.5°C) by the year 2100, more than twice the rise of 3.6°F (2.0°C) forecast by the U.K. model (the second model used in the USNA). Compare this with what has actually occurred during the past century. The CCC model predicted a warming of 2.7°F (1.5°C) in the United States over the course of the twentieth century, but the observations show that the increase was about 0.25°F (0.14°C) (Hansen, J.E., et al., 1999: GISS analysis of surface temperature change. *Journal of Geophysical Research*, 104, 30,997–31,022), or about 10 times less than the forecast [Hansen has since revised this to 0.5°C, which makes the prediction three times greater than what has been observed].... The CCC forecast of precipitation changes across the United States is equally extreme. Of all the models reviewed for inclusion in the USNA, the CCC model predicted more than twice the precipitation change than the second most extreme model, which interestingly, was the U.K. model [the other model used in the NACC]. The U.K. model itself forecast twice the change of the average of the remaining, unselected models. Therefore, along with the fact that GCMs in general cannot accurately forecast climate change at regional levels, the GCMs selected as the basis for the USNA conclusions do not even fairly represent the collection of available climate models.

Why deliberately select such an inappropriate model as the CCC? [Thomas Karl, co-Chair of the NACC synthesis team replied that] the reason the USNA chose the CCC model is that it provides diurnal temperatures; this is a remarkable criterion given its base performance....”

“The USNA’s high-end scenarios are driven by a model that 1) doesn’t work over the United States; 2) is at functional variance with virtually every other climate model. It is simply impossible to reconcile this skewed choice with the rather esoteric desire to include diurnal temperatures...”

Explanatory text: *It is clear that the NACC chose two extreme models out of a field of literally*

dozens that were available. This violates the FDQA requirements for "objectivity" detailed in the third paragraph of this Petition.

Second, Dr. Michaels is clearly not alone in his assessment. Consider the comments of government reviewers, all received and possessed by USGCRP. For example, that styled **"Improper use of climate models"**, by William T. Pennell of Northwest National Laboratory, submitted through DOE (John Houghton) to Melissa Taylor at USGCRP:

"Although it is mentioned in several places, greater emphasis needs to be placed on the limitations that the climate change scenarios used in this assessment have on its results. First, except for some unidentified exceptions, only two models are used. Second, nearly every impact of importance is driven by what is liable to happen to the climate on the regional to local scale, but it is well known that current global-scale models have limited ability to simulate climate effects as this degree of spatial resolution. We have to use them, but I think we need to be candid about their limitations. Let's take the West [cites example]...Every time we show maps that indicate detail beyond the resolution of the models we are misleading the reader."

USGCRP received other comments by governmental "peer reviewers" affirming these modeling data transgressions:

"Also, the reliance on predictions from only two climate models is dangerous". Steven J. Ghan, Staff Scientist, Atmospheric Sciences and Global Change, Pacific Northwest Laboratory.

"This report relies too much on the projections from only two climate models. Projections from other models should also be used in the assessment to more broadly sample the range of predicted responses." Steven J. Ghan Staff Scientist, Atmospheric Sciences and Global Change, Pacific Northwest Laboratory.

"Comments on National Assessment. 1. The most critical shortcomings of the assessment are the attempt to extrapolate global-scale projections down to regional and sub-regional scales and to use two models which provide divergent projections for key climatic elements." Mitchell Baer, US Department of Energy, Washington, DC.

"General comments: Bias of individual authors is evident. Climate variability not addressed...Why were the Hadley and Canadian GCMs used? Unanswered questions. Are these GCM's [sic] sufficiently accurate to make regional projections? Nope". Reviewer Stan Wullschlegel (12/17/99).

William T. Pennell, Manager, Atmospheric Sciences and Global Change, Pacific Northwest Laboratory, cites the that "only two models are used" as a "limitation" on the product.

The final NACC currently disseminated by Commerce/NOAA shows these admonitions went unheeded.

Stated simply, the climate models upon which NACC relies struck out. Strike one: they can't simulate the current climate. Strike two: they predict greater and more rapid warming in the atmosphere than at the surface. The opposite is happening (see *e.g.*, http://www.ghcc.msfc.nasa.gov/MSU/hl_sat_accuracy.html). Strike three: they predict amplified warming at the poles, which are cooling instead (see *e.g.*, <http://www.washingtonpost.com/wp-dyn/articles/A40974-2002Jan13.html>). On top of this demonstrable lack of utility for their purported purpose, NACC knowingly misuses them. Repetition of this practice by CCSP will further violate FDQA. CCSP must build protections into its system more stringent than the proffered "Guiding Principles."

2. Failure to Perform Requisite Scientific Review Violates FDQA

USGCRP's development of NACC drew congressional attention to particular shortcomings. Specifically, leaders in the United States House of Representatives repeatedly attempted to ensure USGCRP and its subsidiary bodies follow the scientific method regarding particular matters, specifically the regional and sectoral analyses. Indeed the concerns had become so acute that these leaders successfully promoted a restriction prohibiting relevant agencies from expending appropriated monies upon the matter at issue, consistent with the plain requirements of the GCRA of 1990, through language in the conference report accompanying Public Law 106-74:

"None of the funds made available in this Act may be used to publish or issue an assessment required under section 106 of the Global Change Research Act of 1990 unless (1) the supporting research has been subjected to peer review and, if not otherwise publicly available, posted electronically for public comment prior to use in the assessment; and (2) the draft assessment has been published in the Federal Register for a 60 day public comment period."¹

USGCRP did not perform the conditions precedent for valid science as cited in that language. Instead USGCRP produced and now disseminates a NACC knowingly and expressly without the benefit of the supporting science which not only is substantively required but which Congress rightly insisted be performed and subject to peer review prior to releasing any such assessment.

These attempts to rectify certain NACC shortcomings were made in advance of USGCRP producing the NACC, but were never rectified. These failures justify Petitioners' request that USGCRP cease present and future NACC dissemination unless and until its violations of FDQA

¹ House Report 106-379, the conference report accompanying H.R. 2684, Department of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 2000 (Pub.L. 106-74), p. 137.

are corrected. In addition to NACC violating FDQA's "objectivity" and "utility" requirements, as "influential scientific or statistical information", NACC also fails its "reproducibility" standard, setting forth transparency regarding data and methods of analysis. Per OMB, this represents "a quality standard above and beyond some peer review quality standards."²

Given USGCRP's refusal to wait for completion of the underlying science and their response to the relevant oversight chairmen, it is manifest that USGCRP ignored or rejected these lawmakers' requests, including by the relevant oversight Chairmen and produced a deeply flawed Assessment, knowingly and admittedly issuing a "final" Assessment without having complied with Congress's direction to incorporate the underlying science styled as "regional and sectoral analyses,"³ while also admitting that the requisite scientific foundation would be completed imminently. For these same reasons dissemination presently violates FDQA.

3. First, Incomplete Attempt at a "NACC" Was Not in Fact Peer Reviewed

Finally, NACC suffers from having received no authentic peer review, in violation of FDQA's "objectivity" and "utility" requirements. As "influential scientific or statistical information", for these reasons NACC also fails the "reproducibility" standard, setting forth transparency regarding data and methods of analysis, "a quality standard above and beyond some peer review quality standards."

Once an advisory committee was chartered pursuant to the Federal Advisory Committee Act (FACA) in 1998, Dr. John Gibbons' communication of January 8, 1998 to the first Designated Federal Officer (DFO) Dr. Robert Corell indicates a sense of urgency was communicated to the panel by political officials. Further, statements in the record and major media outlets, including but in no way limited to those from certain anonymous if purportedly well placed sources, indicate a perception among involved scientists that political pressures drove the timing and even content of this draft document. This is manifested by the lack of opportunity to comment for parties whose comment was formally requested as part of a "peer review" of NACC.

This sense of urgency is reflected in, among other places, comments the Cooler Heads Coalition obtained via the Freedom of Information Act, made by parties from the National

² Attachments "B" establish the record of Congress, detailing for USGCRP its more obvious scientific failures which now lead to NACC now violating FDQA, noting USGCRP's apparent failure to comply with such conditions and seeking assurance that such circumstances would be remedied. USGCRP via OSTP drafted a response to House Science Committee Chairman Sensenbrenner, evasively failing to specifically address the concerns raised by these Members. Chairmen Sensenbrenner and Calvert specifically took issue and/or disputed these non-responses in the July 20, 2000 letter, reiterating their request for compliance with the law's requirements. Nonetheless, the failings persist.

³ See Attachments "B". This despite that the two principal NACC sections are "Regions," and "Sections." (see <http://www.gcric.org/nationalassessment/overvpdf/IIntro.pdf>).

Laboratories asked by the Department of Energy to comment on the Draft. In addition to an emphasis on speed as opposed to deliberation, the report's emphasis on "possible calamities" to the detriment of balancing comments which were widely offered, and rampant criticism of the reliance on only two significantly divergent models for the pronouncements made, these comments are exemplified by the following samples from well over a dozen such complaints accessed through FOIA, also received by and in the possession of USGCRP:

- 1) "This review was constrained to be performed within a day and a half. This is not an adequate amount of time to perform the quality of review that should be performed on this size document" (Ronald N. Kickert, 12/08/99);
- 2) "During this time, I did not have time to review the two Foundation Document Chapters" (Kickert, 12/20/99);
- 3) "Given the deadline I have been given for these comments, I have not been able to read this chapter in its entirety" (William T. Pennell);
- 4) **"UNFORTUNATELY, THIS DOCUMENT IS NOT READY FOR RELEASE WITHOUT MAJOR CHANGES"** (CAPS and bold in original)(Jae Edmonds);
- 5) "This is not ready to go!" (William M. Putman).

These comments reflect an alarming implication of timing over substance, and of a product whose final content appears predetermined. Patrick Michaels' comments, and the absence of apparent change in response to his alarming findings, reinforces this troubling reality. Notably, the product was released and continues to be disseminated without offering an actual peer review or otherwise addressing the concerns expressed.

In conclusion, previous USGCRP efforts in this realm, particularly the National Assessment on Climate Change, egregiously failed to meet FDQA and/or OMB guidelines regarding Data Quality. As a consequence, Commerce/NOAA's FDQA Guidelines must prohibit continued dissemination of the NACC, through reliance, reference, link, publication or other dissemination. To avoid repetition of this regrettable waste of millions of taxpayer dollars, agency embarrassment, and litigation, CCSP must ensure that politics is purged from future research, and that these efforts strive to meet federal requirements for "sound science."

Reviewer's name, affiliation: Christopher C. Horner, CEI

IV. Overview Comments on Chapter 13:

**Climate Change Science Program – Reporting and Outreach
(Principally “2. For Decisionmakers”)**

Page 149, Line 25, through Page 151, Line 40

“Reporting and Outreach” is where the products of the entire CCSP reach the public and the political process. The result is climate change policy, which can range from inaction, to actions such as the Kyoto Protocol, to proposals for drastic reductions in greenhouse emissions.

That policy continuum has been very ill-served in recent years, due principally to deeply flawed outreach to the professional community. In order to improve the credibility of federal outreach, we support establishing a “Reporting and Outreach Oversight Committee” (ROOC), as described herein.

V. Specific Comments on Chapter 13:

Page 149, Line 25, through Page 151, Line 40

The reasons for the establishment of this “ROOC” Committee are numerous, some of which are manifested in the CCSP proposal itself. As the proposal notes, much of current outreach has been carried out through the USGCRP. This will likely continue in the future.

While it has probably been the most important federal reporting and outreach apparatus on climate change in recent years, USGCRP has been exposed through litigation and the Freedom of Information Act to be perhaps the most biased office addressing climate change in the entire federal apparatus. This occurred because senior management has largely been composed of people with fairly uniform, extreme views on climate change. This may stem largely from the fact that very little of that senior management consisted of trained atmospheric scientists. Instead, selection of that management was a political decision undertaken by the previous Administration and that management left in place a similarly extremist infrastructure.

Consequently, in order for CCSP Reporting and Outreach to meet a more normal standard for balance, the entire USGCRP staff must be examined for balance by the new ROOC. As a start, ROOC should order USGCRP to sever relations with previous employees who are now serving as consultants, or to ask for letters of resignation which will allow for further consideration after re-evaluation. [See explanation in large part of the necessity of this step, at CEI letter to Adm. Vice Admiral Conrad C. Lautenbacher, Jr., Under Secretary for Oceans & Atmosphere and Dr. James R. Mahoney Assistant Secretary for Oceans & Atmosphere (18 October 2002), found at <http://www.cei.org/gencon/027,03333.cfm>].

A persuasive body of evidence exists of the bias and radical nature of the recent USGCRP.

° Page 150, Line 5. The “monthly Congressional seminar series”, was profoundly one-sided, consisting largely of scientists who were in agreement with the more lurid view of climate change. Scientists with different views were either completely absent from the list of speakers, or were only

allowed to present if there was opposing "balance". That "balance" was highly selective, while those championing the lurid view of climate change were unopposed.

This would never have occurred in USGCRPs funding were vetted through a ROOC-style committee.

°The USGCRP coordinated production of the 2000 "National Assessment" of the potential effects of global warming, which gave rise to much of the subsequent "Climate Action Report" released in 2002. In the Assessment, USGCRP chose to flout the normal ethic of science, in which models must conform to observations before they can be used to determine effects with any credibility.

USGCRP's contravention of scientific norms resulted in litigation under numerous statutes, an FDQA petition to cease dissemination of the Climate Action Report and National Assessment, as well as a hearing by the congressional committees, both during its development and a subsequent inquiry by the House Oversight and Investigations Subcommittee in 2002. Again a ROOC-overseen USGCRP would not have committed to such a biased seminar series or such a scientifically controversial attempt at a National Assessment.

Reporting and Outreach problems on climate change have not been confined to USGCRP. In fact, they are endemic in virtually every large federally-funded entity involved. That is largely because of the nature of the scientific community, discussed briefly below. Once this nature is recognized, corrective administrative measures, such as creating of the ROOC, can be taken to counter its inherent bias.

Understanding the Sociology of Global Change Science

How could the scientific community have accepted the bias of the Seminar Series and the National Assessment, and what does this portend for the future? That community encouraged excesses. And, unless CCSP management is cognizant of the sociology of global change science this tendency will continue or even worsen.

Dramatically increasing the research budget for global climate change, as is proposed in the current document, not only rewards past misfeasance but increases the pressure on scientists to accentuate negative aspects of climate change and to display the issue without balance. This is a natural product of the reward structure for academic research, which is largely predicated upon the amount of federal funding that a scientist brings to his University. Equivocal "problems" do not merit \$4 billion per year in a federal market where health care, environmental, and social concerns compete for funding. Only those presented in the most lurid fashion receive funding.

Threatening that funding stream places the individual scientist at a disadvantage compared to others competing for a finite federal outlay. Consequently, the CCSP must be aware that the science community, in general, will react negatively to members who may question the severity of environmental issues that are receiving substantial funding.

CCSP needs to actively counter this tendency by making Reporting and Outreach support to USGCRP and other applicants contingent upon a demonstrated diversity of reasonable scientific outlook. This was clearly lacking in the committee that directed the National Assessment. A Reporting and Outreach Oversight Committee, such as that detailed below, would have encouraged a proper diversity.

Interestingly, there is another large community of climatologists not as inherently biased toward the lurid on climate issues as many Federal entities, and has substantial experience in Reporting and Outreach on climate science. This is the American Association of State Climatologists (AASC), a scientific society of about 200, including State Climatologists and their professional staffs. Perhaps they are less strident because these individuals serve daily as the interface between climate issues and the public, requiring quotidian hand-on experience with weather data and the impact of climate. Daily immersion in this activity can lead to the conclusion that the climate world, in fact is not coming to a rapid end, but rather that there is a great deal of social adaptation that takes place. Whatever the reason, this community tends to be much less alarmist on the climate change issue than the USGCRP and other federal organizations, and it is also very effective at public communication.

Other public commentary on CCSP, submitted by Roger Pielke, President of the American Association of State Climatologists, makes it quite clear that AASC is very willing to lend its expertise to CCSP, particularly in the areas of climate impacts and proper communication of science, and in communicating the limitations of climate science. In its CCSP commentary, AASC notes:

- Human activities have an influence on the climate system. Such activities, however, are not limited to greenhouse gas forcing and include changing land cover and aerosol emissions, which further complicated the issue of climate prediction. Furthermore, climate predictions associated with human disturbance of the climate system have not demonstrated skill in projecting future variability and changes in such important climate conditions as growing season, drought, flood-producing rainfall, heat waves, tropical cyclones and winter storms. These types of events have a more significant impact on the United States than annual global temperature trends.

A search of USGCRP outreach documents reveals no analogously unequivocal statement about the limitations of climate science. This alone argues for active inclusion of AASC in the Reporting and Outreach activities of the CCSP.

Further, AASC notes:

- General circulation models which have been applied to project changes in global and regional climate for periods of decades into the future need to be viewed as hypotheses about the behavior of the atmosphere in response to human disturbance. The validity of such models is uncertain because our

understanding of all relevant climate factors (and their relationships and interactions) is incomplete. New research should be based only upon hypotheses that can be verified by observed data. This underscores the need to continue (and, in fact, enhance) the long-term climate monitoring system in the United States so that, for example, climate models can be properly tested.

At the December Planning meeting for the CCSP, USGCRP consultant (and former coordinator for the National Assessment) Michael MacCracken argued that testing the GCMs that were used in the Assessment on observed temperatures over the United States during the period of greenhouse enhancement was not appropriate. The fact that USGCRP is at such variance with AASC, whose leadership is certainly on a scientific par with USGCRP, indicates there is a vigorous debate over what scientific information may appropriately be presented to the public. The disparity of informed scientific opinion is *prima facie* evidence for the need for enhanced scientific diversity in important Reporting and Outreach activities of the CCSP.

Specific Recommendations

- CCSP establish a "Reporting and Outreach Oversight Committee" (ROOC) specifically designed to be inclusive. Membership should be from the scientific, environmental and industrial communities, with special attention paid to the fact (noted above) that the scientific community is itself economically biased towards exaggeration of funded or potentially funded environmental threats.
- Because of their scientifically controversial nature stemming from lack of appropriate oversight diversity, ROOC should request removal of the "National Assessment" from USGCRP communications as well as a web submission explaining why it had to be removed; in addition to the FDQA reasons detailed, *supra*, is the fact that the supposed NACC of October 2000 failed to comply with the statutory list of areas to be explored, thus not qualifying and leaving USGCRP to still have not presented a NACC, over a dozen years after the statute's passage.
- Because it is largely based upon the National Assessment, Chapter 6 of the Climate Action Report-2002 should similarly be withdrawn by its publisher, the Environmental Protection Agency, along with appropriate explanatory literature.
- All federal funding disbursed through the CCSP for Reporting and Outreach must be approved by that Committee. The Committee will attach particular importance to the scientific and policy diversity that resides in any organization whose funding it oversees.
- As a centerpiece of CCSP Reporting and Outreach, the ROOC coordinate the staffing and development of a new or, actually, First "National Assessment" of potential effects of climate change on the United States, superceding the unlawful version; in addition, the next "Climate Action Report" should contain text on the impact of climate change based upon the new Assessment. ROOC should enlist a much more diverse coordinating staff for the new Assessment, in particular including the expertise of the American Association of State Climatologists.

Reviewer's name, affiliation: Christopher C. Horner, CEI

Washington D.C. 20004-2696
Telephone 202-508-5000



EDISON ELECTRIC
INSTITUTE

OFFICE OF GENERAL COUNSEL

DATE Jan-17, 2003

FACSIMILE COVER SHEET

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→ COMMENTS: Jim and Phil, We'll messenger the final signed version to you late this afternoon. Please let Tom or me know if you have any last-minute thoughts or comments on the attached as soon as possible.
Bill

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January 17, 2003

The Honorable Spencer Abraham
Secretary of Energy
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Delivered by Messenger

Dear Mr. Secretary:

The Edison Electric Institute (EEI) continues to support voluntary actions to reduce greenhouse gases (GHGs) and specifically supports the President's goal of reducing U.S. GHG intensity over the next decade. EEI and the electric utility industry¹ are world leaders in voluntary actions to reduce, avoid or sequester GHGs. In fact, in 2000 power sector activities comprised about 70 percent of the total reductions, avoidances and sequestrations reported to the Energy Information Administration. These activities primarily consisted of improvements to nuclear plants; energy efficiency and demand-side management (DSM) projects; improvements to fossil-fuel plants; methane recovery, forestry projects and fly ash reuse; and renewables projects.

EEI has been working with our EPICI industry allies and our member companies to develop a joint response from the entire power sector that reflects our fair contribution to the President's goal. Accordingly, EPICI plans to enter into a cooperative umbrella agreement or memorandum of understanding (MOU) with DOE by May 1, 2003. In this decade, EEI will work with our EPICI industry allies and the government to reduce the power sector's carbon intensity by the equivalent of 3 to 5 percent.

¹ In response to President Bush's call for action, EEI joined with six other power sector groups – Nuclear Energy Institute (NEI), American Public Power Association, Large Public Power Council, National Rural Electric Cooperative Association, Electric Power Supply Association (EPSA) and Tennessee Valley Authority (TVA) – to form the Electric Power Industry Climate Initiative (EPICI). EPICI's primary purpose is to coordinate the power sector's voluntary climate activities in cooperation with, and with assistance from, the Department of Energy (DOE) and other government agencies. The partnership between EPICI and DOE has been designated "Power PartnersSM." Power PartnersSM, along with other industry partnerships with DOE, constitute the Administration's "Energy Partners for Climate Action" (also referred to as "Business Challenges"). Several EEI member companies are also participating in other voluntary climate programs, such as Climate Leaders (with the Environmental Protection Agency (EPA)), Chicago Climate Exchange, Business Round Table and Partnerships for Climate Action.

The Honorable Spencer Abraham
January 17, 2003
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Accomplishing this goal will be very difficult, as few sectors in the economy are likely to experience the level of growth forecast for our industry from 2000 to 2010. This goal will be achievable only if all EPIC I trade groups and their members – with government support and appropriate policies² – work together to implement robust supply- and demand-side actions as well as offset projects. A combination of power sector and government efforts will be necessary, including: individual company actions reflecting companies' particular circumstances (financial, operating and fuel mix); government laws, regulations and policies favoring the full utilization or maintenance of nuclear and hydroelectric plant generating capacity; adequate supplies and delivery infrastructure for natural gas; economic incentives for renewables; and the full benefits of energy efficiency and DSM as well as offset projects. Since individual companies face different circumstances, the voluntary reduction goal does not apply to companies individually.

Some companies individually may be able to exceed this goal. And, as an industry, we may be able to achieve a higher goal in the future. However, the achievement of any goal is dependent upon market-driven forces affecting our industry's fuel mix, and government laws and policies.

Individual Company Activities as the Cornerstone. . .

In order to reach the President's goal, EEI has strongly recommended that member companies focus on quantitative, concrete and specific activities to reduce, avoid or sequester GHGs.

Once the umbrella MOU is completed, individual member companies may enter into company agreements with DOE. Activities pledged in these documents will include individual company actions – whether undertaken as a member of EEI, NEI, EPSA or any other group – and joint, industry-wide initiatives (see discussion below).

Supporting individual company actions will be the Power Partners Resource Guide, which will set forth a panoply of supply- and demand-side options for companies to consider in order to reduce, avoid and sequester GHGs. Among these activities will likely be: additional natural gas³ and clean coal technology generation; additional nuclear generation (through increased capacity utilization, upratings and plant restarts)⁴; additional renewables, energy efficiency and DSM; additional offset projects (e.g., tree planting and forest management,⁵ methane projects and international projects); and

² The critical area of government policies is addressed in Enclosure 1 to this letter.

³ See EPSA letter of January 10, 2003, to you.

⁴ See NEI letter of December 23, 2002, to you.

⁵ The forecast for carbon sequestered in the U.S. through power sector activities is 4-5 million metric tons of CO₂ in the next decade. International sequestration activities by the power sector are likely to result in similar numbers of sequestered tons.

The Honorable Spencer Abraham
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additional actions related to compliance with new air regulations (e.g., additional natural gas and less coal generation).

... Supplemented by Industry Initiatives

In addition to individual company actions, which are the cornerstone of Power PartnersSM voluntary programs, EEI member companies will also participate in industry initiatives. Our industry currently has eight initiatives underway, with six headed by EEI and two led by EPRI.⁶

Other Actions

In conjunction with our EPICI industry allies and federal agency partners, EEI also plans to issue an interim report that examines the progress of Power PartnersSM activities and will seek to identify additional actions that could be undertaken by member companies, individually and collectively, to help meet the President's goal.

Furthermore, EEI will strive to obtain full company participation in Power PartnersSM. Companies currently participating comprise more than 87 percent of EEI member company generation.

We appreciate the opportunity to work with DOE and other agencies as part of the Administration's Energy Partners for Climate Action, and look forward to participating in the February 6 kickoff event in Washington, D.C.

Sincerely,

Thomas R. Kuhn

TRK:lsf
Enclosures (2)
cc (w/ encls):
Hon. Robert G. Card
Under Secretary for Energy, Science and Environment

Hon. Vicki A. Bailey
Assistant Secretary
DOE Office of Policy and International Affairs

⁶ The current forecast for these initiatives is contained in Enclosure 2 to this letter.

The Honorable Spencer Abraham
January 17, 2003
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Barton Marcois
Principal Deputy Assistant Secretary
DOE Office of Policy and International Affairs

Larisa Dobriansky, Esq.
Deputy Assistant Secretary
DOE Office of Policy and International Affairs

Hon. James L. Connaughton, Esq.
Chairman
Council on Environmental Quality

Philip A. Cooney, Esq.
Chief of Staff
Council of Environmental Quality

Hon. Christine Todd Whitman
Administrator
Environmental Protection Agency

Enclosure 1

Government Policies

One key to the success of voluntary climate programs for the power sector is the implementation of appropriate government policies. Overall, increased support for emissions-free or less fossil fuel-intensive technologies or practices – such as renewables, clean coal technologies, natural gas, and energy efficiency and demand-side management – can help drive down greenhouse gases (GHGs).

- Access to natural gas supply and natural gas transportation infrastructure are critical.
- We are heartened by the announcement last fall that the Department of Energy's nearly \$50 million of annual support for geological carbon sequestration will be increased up to \$90 million.
- Funding for international power projects would also be helpful.

With regard to changes in policies and regulations, the following are necessary to help directly or indirectly decrease GHGs:

- Hydroelectric relicensing reform.
- Nuclear power plant licensing extensions.
- Reform of the new source review regulations under the Clean Air Act (in order to facilitate improvement of power plant efficiency and thereby decrease GHGs).
- Transmission siting authority for the federal government (which would ease seriously constrained transmission capacity in the U.S., which has required additional generation or power plants).

Reporting reforms under Energy Policy Act (EPAAct) section 1605(b) are critical to industry participation in voluntary programs. The February 14 presidential statement articulated these reforms as the award of transferable credit and not penalizing those taking voluntary measures for their actions under future climate policy (which some have characterized as "baseline protection"). In addition, the July 8, 2002, four-agency letter to the President recommended a placeholder for activities previously reported under the EPAAct section 1605(b) guidelines.

Government tax policies that would assist in reducing GHGs include accelerated depreciation and amortization of pollution control equipment. Other important financial incentives include production tax credits for renewables – such as wind, biomass and solar energy – and tax incentives for hybrid and fuel cell vehicles.

Enclosure 2

Contributions from EEI and EPRI Industry-wide Initiatives

The current forecast for EEI's industry initiatives is as follows:

- **ForestTree Carbon Company:** As much as 2 million metric tons of carbon dioxide (CO₂) are expected to be sequestered over the lifetime of the projects.¹
- **Coal Combustion Products Partnership:** This partnership with the Environmental Protection Agency will increase the use of coal combustion products, and therefore is projected to increase CO₂ avoidances from the current 16 million metric tons of CO₂ to as much as 30 million metric tons of CO₂ annually.
- **International Power Partnerships:** This partnership with the Department of Energy (DOE) could reduce, avoid or sequester 1.8-18 million metric tons of CO₂-equivalent greenhouse gases (GHGs) annually from 2002-2010, depending on government (DOE) funding of, and member company investments in, projects.
- **Three initiatives on wind, biomass, and restoration of abandoned mine lands:** Tons of GHGs reduced, avoided or sequestered as result of these renewables and restoration initiatives are uncertain until projects are developed, but are potentially high.

EPRI's carbon capture and storage and climate technology roadmap initiatives: These long-term, research, development and deployment programs are unlikely to yield significant tons of GHGs reduced, avoided or sequestered in the short to medium term, but their potential for addressing GHGs in the long term is high.

¹ The Department of Agriculture this month is holding two workshops on revision of the Energy Policy Act section 1605(b) guidelines that may address unresolved carbon sequestration accounting issues, such as reporting a larger number of sequestered tons during the early years of projects.

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**EDISON ELECTRIC
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January 17, 2003

The Honorable James R. Mahoney, Ph.D.
Assistant Secretary of Commerce for
Oceans and Atmospheres, and
Director, Climate Change Science Program
U.S. Department of Commerce
Suite 250
1717 Pennsylvania Avenue, N.W.
Washington, D.C. 20006

Dear Dr. Mahoney:

The Edison Electric Institute (EEL) appreciates the significant efforts undertaken by the Administration in developing the November 11, 2002, draft "Strategic Plan for the Climate Change Science Program." The draft plan is a "vehicle to facilitate comments and suggestions" on the proposed "climate and global change" research needs of the U.S. by stakeholders, such as EEL, scientists and others who attended the Program's three-day workshop last month. We also appreciate the opportunity to review the four White Papers prepared in support of several chapters of the draft plan posted on the Web on November 26 and 27, 2002.

EEL is the association of our nation's shareholder-owned electric utilities and industry affiliates worldwide, with 200 member companies in the United States serving more than 90 percent of all customers served by the shareholder segment of our industry and 48 affiliate members in 17 countries. We have a long history of participation in global climate matters, including the development of the several assessment reports of the Intergovernmental Panel on Climate Change (IPCC) that relies heavily on research results from the U.S. and elsewhere, and the development and continuing efforts to implement the Framework Convention on Climate Change (FCCC), such as occurred last fall at the FCCC's eighth session of the Conference of the Parties (COP-8) in New Delhi, India.

COP-8 adopted conclusions that are relevant to the draft U.S. plan on the importance of an integrated international effort on research and systematic observation areas of need. COP-8 also adopted, with U.S. backing, the Delhi Declaration on Climate Change and Sustainable Development. It emphasized, among other things, that adaptation to the "adverse effects of climate change is of high priority for all countries," as well as the promotion of "sustainable development." The Declaration added, "Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each

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James R. Mahoney, Ph.D.
January 17, 2003
Page Two

[FCCC] Party and should be integrated with national development programmes taking into account that economic development is essential for adopting measures to address climate change.”

Last February President Bush established the Climate Change Science Program (CCSP) to coordinate and direct research efforts of climate and global change. The CCSP is to report to an interagency group that in turn reports to the Cabinet-level Committee on Climate Change Science and Technology Integration (also established by the President last February). The CCSP includes the U.S. Global Change Research Program (USGCRP) authorized by the Global Change Research Act of 1990 (15 U.S.C. sec. 2921 *et seq.*) and the Climate Change Research Initiative (CCRI) announced in June 2001 by the President. We note that Part I of the draft strategic plan, which was prepared by several federal agencies of CCSP, relates to the CCRI; Part II, to the USGCRP; and Part III, to communication, cooperation and management.

Clearly, a strong near- and long-term research program that addresses the significant areas of outstanding uncertainties in the understanding of human-induced – as opposed to naturally occurring – climate change is a key element in the development of future policies and measures by both the public and private sectors. We welcome the efforts of the Administration to structure, improve and accelerate that research.

However, we are concerned that despite the June 11, 2001, directive of the President that the Secretary of Commerce “set priorities for additional investments in climate change research,” the draft plan does not specify priorities for the research identified therein. All of the research appears to have the same importance or urgency even though it would seem that some of the research areas should clearly precede others in order to be effective and timely.

We are also concerned about establishing time frames of 2-4 years, particularly without also establishing priorities, for all of the CCRI research areas and for some of the USGCRP research areas. While we recognize the need to demonstrate progress and to keep pressure on the researchers and the sponsoring agencies, the workshop showed that such times frames are likely to be unrealistic and disappointing. We believe a milestone approach would be a better way forward in achieving the President’s desire to “increase our knowledge” and to be “creative” and “flexible.”

Based on our background and experience, EEI takes the opportunity to comment in more detail on this important and helpful draft strategy document. Our detailed comments are enclosed in accordance with the CCSP “Format for Comments” guidance.

James R. Mahoney, Ph.D.
January 17, 2003
Page Three

If you have any questions about our comments, please contact me at (202) 508-5617 (or bfang@eei.org) or Eric Holdsworth, Director, Climate Programs, at (202) 508-5103 (or eholdsworth@eei.org).

Sincerely,



William L. Fang
Deputy General Counsel
and Climate Issue Director

WLF:fhg
Enclosure
cc (w/ enclosure):

Dr. Harlan Watson
Senior Climate Negotiator and Special Representative
U.S. Department of State

Philip A. Cooney, Esq.
Chief of Staff
Council on Environmental Quality

Enclosure
January 13, 2003

**COMMENTS OF THE EDISON ELECTRIC INSTITUTE
ON THE DRAFT STRATEGIC PLAN FOR THE
ADMINISTRATION'S CLIMATE CHANGE SCIENCE
PROGRAM**

This enclosure provides EEI comments on the draft and related White Papers in the CCSP format.

I. Background Information

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II. Overview Comments on Chapter I:
Introduction – Climate and Global Change:
Improving Connections Between Science and Society

First Overview Comment: The term “climate change” first appears in Chapter I (p. 8, line 11) and as part of the term “climate and global change” (p. 8, lines 21 and 25). Both terms are frequently used in the draft plan. However, neither term is defined in the draft, although the term “global change” is defined in section 2 of the Global Change Research Act of 1990 as “changes in the global environment (including alterations in climate, land productivity, oceans or other water resources, atmospheric chemistry, and ecological systems) that may alter the capacity of the Earth to sustain life.” Similarly, the term “Global change research,” which is also used in the draft, is defined in section 3 of that Act. We presume that both definitions are applicable to the draft strategic plan even though they are not spelled out therein. However, there is no such statutory definition of the term “climate change” in the 1990 Act.

We are concerned about the lack of a definition in the draft of that term because usage of the term differs, as shown by the Intergovernmental Panel on Climate Change (IPCC) in a footnote to its Summary for Policymakers (SPM) of the Working Group I’s contribution to the IPCC’s Second and Third Assessment Reports. The footnote states:

Climate change in the IPCC Working Group I usage refers to any change in climate over time whether due to natural variability or as a result of human activity. This differs from the usage in the Framework Convention on Climate

Change where climate change refers to a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.

The draft strategic plan indicates that it is focusing on a “set of uncertainties about the global climate system” referenced by the National Academy of Science (NAS) in its 2001 study requested by the Administration, “Climate Change Science: An Analysis of Some Key Questions,” which examined the IPCC’s SPM for Working Group I of the Third Assessment Report. One question asked of the NAS by the Administration was: “Are greenhouse gases causing climate change?” The NAS responded:

The IPCC’s conclusion that most of the observed warming of the last 50 years is likely to have been due to the increase in greenhouse gas concentrations accurately reflects the current thinking of the scientific community on this issue. The stated degree of confidence in the IPCC assessment is higher today than in was 10, or even 5 years ago, but uncertainty remains because of (1) the level of natural variability inherent in the climate system on time scales of decades to centuries, (2) the questionable ability of models to accurately simulate natural variability on those long time scales, and (3) the degree of confidence that can be placed on reconstructions of global mean temperature over the past millennium based on proxy evidence.

A “Glossary” to the SPM for the Second Assessment Report comments further on the IPCC usage of the term “climate change” as follows:

Climate change as referred to in the observational record of climate occurs because of internal changes within the climate system or in the interaction between its components, or because of changes in external forcing either for natural reasons or because of human activities. It is generally not possible clearly to make attribution between these causes. Projections of future climate change reported by IPCC generally consider only the influence on climate of anthropogenic increases in greenhouse gases and other human-related factors.

While it may be difficult at times to “make attribution between these causes,” it is important for the CCSP to avoid conveying the implication or assumption that all climate changes are attributable to “human activities.” They clearly are not. Given the Administration’s question to the NAS and the NAS’s response, the draft should indicate which “usage” of climate change is applicable in carrying out the U.S. strategic plan. The IPCC’s definition may be the most appropriate.

Second Overview Comment (section 3, p. 11): This section sets forth “three guiding principles” that underpin the “objectivity, integrity, and usefulness” of the CCSP’s “research and reporting.”

The first principle is that the “scientific analyses conducted by the CCSP are policy relevant but not policy driven.” It appears to mimic an almost identical principle set forth in section 4.4.1 of the “Principles Governing IPCC Work” and applicable to IPCC Reports, including its Synthesis Report (SR), which were developed and adopted in 1999 by the IPCC meeting as an intergovernmental body, not as a scientific body. That section states that the SR should address a “broad range of policy-relevant but policy-neutral questions approved by the Panel” (*i.e.*, the IPCC). At that same session, the IPCC went on under then Chairman Robert Watson’s direction to develop the questions for use in the SR. The SR responses, like the questions, were approved and adopted by the IPCC, also meeting as an intergovernmental body in 2001.

The second principle is that the CCSP analyses should “specifically evaluate and report uncertainty” and the third is that the CCSP “analysis, measurements, projections and interpretations shall meet two goals: scientific credibility and lucid public communication.”

Each principle is expressed with reference to “CCSP analyses,” not to CCSP “research and reporting.” None of the principles is elaborated sufficiently in the draft to understand how it is to be applied in the context of such “CCSP analyses.” With greater elaboration or explanation, they may be more helpful.

Further, the CCSP draft strategic plan states (p. 11) that it is “built around a carefully constructed set of questions and objectives” and that the “research questions” are intended to “focus on broad science issues . . . supported by more detailed questions and objectives that can be addressed in scientific research initiatives and projects” funded by the federal government. The “challenge,” according to the draft (p. 10), is:

“to focus attention on key climate change issues that are important for public debate and decisionmaking, while maintaining sufficient breadth to facilitate the discovery of the unexpected. Establishing a careful balance between focus and breadth is essential if scientists are to develop knowledge of the intersections between natural variability and potential human impacts on the Earth System.”

All of this requires constant oversight and coordination by the CCSP to ensure that the strategic plan is implemented and the results reported, all on a timely basis. The reference to the “CCSP analyses” function in the context of three “principles” seems extraneous to the CCSP ensuring this “balance.” To our knowledge, there is no discussion in this draft of the need for such CCSP analyses; how or when the analyses would be conducted or how or when the researchers, stakeholders, and the public would review them; or whether there would be a peer-review process. In short, the purposes of this section need to be reexamined and explained, or this section should be deleted.

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

III. Specific Comments on Chapter I Introduction:
“Climate and Global Change: Improving Connections
Between Science and Society”

Page 11, section 3, delete and renumber section 4 “The Research Strategy” as section 3.

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

IV. Overview Comments on Part I:
“Overview of the Climate Change Research Initiative”

Overview Comment (p. 15): The February 14, 2002, “New Approach” to the challenge of global change states (tab 5, p. 24) that “on June 11, 2001 the President announced the creation” of the U.S. Climate Change Research Initiative (CCRI) to “study areas of scientific uncertainty and identify priority areas of scientific uncertainty and identify priority areas where investments can make a difference.” The document added:

The CCRI promotes a vision focused on the effective use of scientific knowledge in policy and management decisions, and continued evaluation of management strategies and choices.

* * * * *

The CCRI will improve the integration of scientific knowledge, including measures of uncertainty, into effective decision support systems and will adopt performance metrics and deliverable products useful to policymakers in a short time frame (2-5 years).

However, the draft strategic plan lacks any prioritization of the research listed for the CCRI research and states (p. 15) that the “CCRI programs will produce” such deliverables in a 2-4 year time frame rather than the “2-5 years” range noted by the President last February. We are concerned about this failure to prioritize and that even a 2-5 year time frame may be unrealistic.

Chapters 2 and 3 of the draft covers the CCRI areas and provide an extensive list of “Research Needs” with a list of “Products and Payoffs” or deliverables. However, there are no priorities established in the draft for the research and related deliverables. Indeed, all seem to have the same priority. Further, except in the case of the North American Carbon Program (pp. 19-20) and in the case of scenario development (pp. 46-47), there are also no timetables for the deliverables in Part I. This is in contrast to Part II (which is intended to address long-term needs), where in the case of many “Products and Payoffs” there are numerous instances of a schedule for each deliverable, some of which are also 2-4 years.

In the case of scenarios, the draft states (p. 46) that a “specific set of scenarios” to address “relevant policy and resource management questions—at the national, regional, and sectoral levels—will be developed in collaboration with stakeholders” and it even indicates how the scenarios will be used. The time frame assigned is two years. It adds (p. 47) that reports “summarizing insights relevant to the questions posed by the decisionmakers and

regional/sectoral resource managers, along with an analysis of the uncertainty, will be written” also in two years. It is unclear whether these two “2 years” will run simultaneously or consecutively. Preceding these descriptions and statements of “2 years” is the following (p. 46):

CCRI scenario development will go beyond past scenario activities such as those of the IPCC. Decisionmakers, resource managers, and other stakeholders will be engaged to help identify the types of scenarios that could be used to provide them with timely and useful information. The CCRI will develop logical and internally consistent scenarios with input from the full range of relevant stakeholders, which potentially include environmental non-governmental organizations (NGOs), industry representatives, natural resource managers, government agencies, and research scientists. It will undertake independent analysis to extract up-to-date information on projections for key variables (e.g., demography; technology characteristics and costs; and economic growth and characteristics) and the relationship of key driving forces to environmental change (e.g., land use and land cover) and adaptive capacity. The CCRI will coordinate its scenario development plans with the new IPCC scenario efforts. The IPCC may be interested in adopting some of the CCRI scenarios or combining CCRI and IPCC efforts.

However, the draft fails to explain the process for such “input” and coordination and how long it will take, although the draft lists (p. 42) as “Products and Payoffs” the selection of a “set of potential policy questions that require information support from the climate change community through stakeholder/scientist interactive dialogue” to “influence the development of scenarios (6 months).” To our knowledge, the U.S. Global Change Research Program (USGCRP) has not, since its establishment in 1989, undertaken to obtain “input” from the “range of relevant stakeholders” that include EEI and our members. The USGCRP did not seek public input in publishing the “Our Changing Planet” report on the USGCRP under the 1990 Act. The lack of such experience in gaining public “input” would certainly make it difficult to accept the two “two-year” time frames noted above for the scenario “Products and Payoffs.”

As to coordination of “scenario development plans with the new IPCC scenario efforts,” we bring to your attention an article in the November 27, 2002, edition of the “National Post” (published in Canada) that is headed “Leading economists want a full review of the UN’s 100-year economic models for climate change, which they say contains ‘material errors’ that invalidate temperature forecasts.” The article states:

A vocal group of economists around the world – including some of the leading figures in the field of global economic modeling – believe the core economic analysis behind the United Nations climate change initiative is based on seriously flawed modeling principles. If their analysis is correct, the central specific tenets of global warming, including the 100-year carbon emissions forecasts and temperature increases, are likely grossly exaggerated.

Contrary to popular belief, the theory that the world is heading for major temperature increases over the next century is not primarily a scientific issue. The main framework for long-term predictions that temperatures could rise up to 4.5 degrees between now and 2100 is based in large part on economic models, not

science models. But according to many economists, the economic models used by the IPCC contain what are described as “material errors.” These technical errors, which include what might be deliberate use of inappropriate exchange rates and unbelievably high growth rate assumptions, have major implications. The possibility that the central economic foundation for global warming might be riddled with errors will be brought before the IPCC Bureau next month, according to Dr. Rajendra Pachauri, head of the IPCC. In a letter to Ian Castles, an Australian economist who believes the IPCC’s economic forecasts are widely off base, Dr. Pachauri said he planned to initiate a “full consultation” to get to the bottom of the issue.

Mr. Castles, former head of Australia’s statistic bureau and department of finance, sounded the alarm over the economic projections last August in a letter to Dr. Pachauri. In the letter, distributed to associates around the world, Mr. Castles said it is important “that governments be advised as soon as possible that the economic projections used in the IPCC emissions scenarios are technically unsound.”

* * * * *

It is from there “fantastic assumptions,” says Mr. Castles in his letter to the IPCC, that the official modelers accommodated soaring emissions growth estimates. In the emissions scenario that accompanies the growth rates in the chart nearby, for example, the IPCC Special Report on Emissions Scenarios (SRES) estimated that in this decade alone carbon emissions would increase by 800 million tones in the developing world. “In other words,” writes Mr. Castles, “the modelers assumed that increases in emissions in each of the SRES developing regions would be greater in the current decade than the increase for the world as a whole between 1990 and 2000.”

On the basis of these assumptions, which are “completely unrealistic,” he says the SRES proposes that carbon emissions of fossil carbon dioxide will increase between 24% and 46% in developing countries during this decade. “On this basis, output [under this model] suggests that GDP per head could rise by around 50% in both regions.” That’s impossible, he suggests. It is already certain that growth of that magnitude will not occur. The IMF’s latest World Economic Outlook forecasts don’t even come close to forecasting such growth.

We understand that the IPCC Bureau at its December 2002 meeting discussed this correspondence with the IPCC and that the U.S. was represented. However, we do not know the results of that meeting. This is an important issue. The above article states that Castles “wants the IPCC to act quickly and not “delay reporting back until 2007 or some other date.” The review “should take place immediately.”

We realize that almost a year has passed since the President announced his “New Approach” last February, and that when he did so, he said his Fiscal Year (FY) 2003 budget included \$80 million “dedicated to implementation” of the CCRI and the National Climate

Change Technology Initiative, with half of that amount for CCRI “to be shared among five agencies.” However, the relevant appropriation for FY03 has not yet been enacted, it has taken nearly a year to develop the draft plan, it will not be finalized until later this spring, and the budget for FY '04 will not be transmitted to Congress for a few weeks. We presume that the Congress will want to consider the plan, together with the budget request. In short, it is unclear from the draft when the 2-4 year, 2-5 year and 6-month time frames would begin and whether the research will be fully funded by the Congress for fiscal years 2003 and 2004.

EI is skeptical about the draft establishing a 2-4 year, 2-5 year or 6-month time frame for deliverables for the CCRI research needs, particularly in the absence of any setting of priorities and in the context of the uncertain status of appropriations. A better approach is to establish realistic milestones for such deliverables that take into consideration the congressional and budgetary processes. However, even milestones are inappropriate without a real effort to prioritize, taking into consideration the uncertainties and research needs discussed by the NAS.

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

V. Overview Comments on Chapter 3:
Climate Quality Observations, Monitoring and Data Management

The draft (p. 26) initially raises the question of how did “global climate change over the past fifty years and beyond,” and what “level of confidence” exists for this data “in attributing change to natural and human causes.” We are concerned that the draft seems, by this question, to focus on only “fifty years” of data. Additionally, under the heading “Products and Payoffs” (p. 28), the draft refers to “50 years and beyond.” We think 50 years is too brief a period on which to focus and note that the IPCC assessments cover a longer period, generally 100 years. Further, the draft discusses the need to incorporate historical data as far back as 150 years to better understand climate variability (p. 27):

Many individuals in many countries have gathered climate system variables using many different instrument types during the past 150 years to document climate system variability. In order to document and understand change from a historical perspective, we need to develop global, comprehensive, integrated, quality-controlled databases of climate system variables based on historical or modern measurements, and to provide the user community with open and easy access to these databases. We need to integrate these records as far into the past as is practical to reduce uncertainties in the climate trend estimates of individual parameters.

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

VI. Overview Comments on Chapter 4:
“Decision Support Services”

First Overview Comment (pp. 38-39): In his June 2001 remarks, the President said that the “United States has spent \$18 billion on climate research since 1990” which is “more than Japan

and all 15 nations of the EU combined,” but “we made” it clear that “we need to know a lot more.” The President added:

Today, I make our investment in science even greater. My administration will establish the U.S. Climate Change Research Initiative to study areas of uncertainty and identify priority areas where investments can make a difference.

I’m directing my Secretary of Commerce, working with other agencies, to set priorities for additional investments in climate change research, review such investments, and to improve coordination amongst Federal agencies. We will fully fund high-priority areas for climate change science over the next five years. We’ll also provide resources to build climate observation systems in developing countries and encourage other developed nations to match our American commitment.

However, in several ways Chapter 4 of the draft seems to shift the above purpose of CCRI’s criteria away from research enhancement aimed at resolving the uncertainties and related study areas identified by the NAS toward an emphasis of support for decision-making.

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

Second Overview Comment (pp. 38-39): The draft asserts (p. 38) that the CCRI “will synthesize the results of the research conducted” by the CCSP “to present critical information to decisionmakers and resource managers both within and outside of the U.S. Government.” The draft then provides a definition of “decisionmakers” as those that “engage in the development of national policy such as setting national goals for greenhouse gas emissions and negotiating with other countries over international agreements” (p. 38, lines 8-10). We presume that this definition is intended to apply to the entire draft. However, there is a different definition of this term in Chapter 13 (p. 150).

The definition with its references to national policy and negotiations for “international agreements” clearly covers only federal and other governmental persons, to the exclusion of others in and outside government. Clearly, this definition is too narrow. It does not, for example, include resource managers or stakeholders in the private sector, even though the President himself urged last February 14 that the business and industrial community undertake voluntary programs as part of the Administration’s “Business Challenge.” Undoubtedly, they also strive for greater research that provides “critical information,” as shown by the following (pp. 38-39):

One major key element of the CCRI is the ongoing engagement of scientists, decisionmakers, resource managers, and other stakeholders in identifying issues and questions, and providing data and products that include characterizations of uncertainties and the level of confidence associated with this information.

* * * * *

Research will provide continually stronger foundation to help decisionmakers evaluate the suite of alternative policy options and operational strategies.

Further, the definition is too limiting when it focuses on emissions and international agreements, and does not even allude to adaptation, sustainable development, jobs, the environment or the economy. Only a few weeks ago, the U.S. delegation to COP-8 in New Delhi joined the G-77 and China in firmly resisting proposals by the European Union and others to start international negotiations for 2013 and thereafter, saying that “we must also recognize that it would be unfair—indeed, counterproductive—to condemn developing nations to slow growth or no growth by insisting that they take on impractical and unrealistic greenhouse gas targets.”

We believe that if there is a need for a definition of “decisionmakers,” it must be more inclusive of the private sector and not be narrowly focused on government officials.

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

Third Overview Comment (p. 39): The draft states (p. 39) that “[o]ne component of the CCRI will focus on national-level challenges associated closely with the mitigation issue . . . associated with long-term global climate change” and “[i]n a parallel effort, the CCRI will accelerate development of a structure and process for integrating science with the decision processes to assist the development of regional and sectorial adaptation responses . . . to variability and long-term changes in climate.” We are concerned that the draft at this point appears to treat mitigation separately, although on a parallel path, from adaptation. Yet we note that last year, the U.S., in response to an invitation by the FCCC’s Subsidiary Body for Scientific and Technological Advice (SBSTA), submitted views “on priority areas of research for the scientific community” relevant to the FCCC (*FCCC/SBSTA/2002/MISC.15*), which called for an integrated assessment of alternatives and an integrated analysis of mitigation and adaptation options. The U.S. said:

The United States believes that adaptive responses and consideration of adverse effects of climate change are important areas for further investigation of potential responses, evaluation of their effectiveness and estimation of their costs. Further, the application of integrated assessment and decision analytical frameworks, which take into account economic, social, and biophysical data could allow for the prioritization of adaptive responses, as well as the relative emphasis on adaptation and mitigation.

* * * * *

The question of an economically efficient transition to a future that minimizes the economic and environmental consequences of climate change cannot be answered without simultaneous consideration of adaptation and mitigation. This should be a priority of the scientific and technical community.

In this regard a major concern is the inadequacy of decision models to capture both the benefits and costs associated with climate change and relevant mitigation strategies. The importance of a better assessment of accounting to reflect the full range of benefits and costs across sectors and on the nation's GDP, investment patterns, consumption levels, and jobs throughout the economy merit investigation.

We believe that the integrated approach to mitigation and adaptation suggested by the U.S. to SBSTA should be the focus of the CCRI. They should not be treated separately.

Reviewer's name, affiliation: Fang/Holdsworth-Edison Electric Institute.

Third Overview Comment (pp. 39-41): The President's February 14, 2002, "New Approach" document states (section 5, p. 24) that the CCRI was "created" to "study areas of scientific uncertainty" and to "identify priority areas where investments will make a difference." The document adds:

The CCRI promotes a vision focused on the effective use of scientific knowledge in policy and management decisions and continued evaluation of management strategies and choices. The "focus" of the investment is "on answering key questions" identified by the NAS.

However, Chapter 4, section 1 of the draft seems to have a different "focus," namely providing that the "CCRI will initiate a process" of identifying "policy decisions that should influence the focus of climate change research programs" and stating that "[o]ne goal of the decision-support efforts of the CCRI is to identify national-level decisions and to use the list to develop decision support activities as well as to prioritize climate change research" (p. 40). The draft states (pp. 39-41):

For the last decade, the primary focus of the development of climate change science information at the national level has been in response to the debate on energy policy.

* * * * *

It will be important to consider likely future policy decisions, because there can be lag time in the delivery of research results. The resulting articulation of potential policy questions will serve as a foundation for the subsequent decision support activities. One goal is to expand the range of decisions from an emphasis on energy policy to a broader agenda that includes greenhouse gases and pollution other than carbon dioxide (CO₂)....

* * * * *

Research projects that contribute to decision support will be supported under CCSP.

* * * * *

CCRI will attempt to establish mechanisms to foster a new class of working relationships to ensure that relevant issues are identified, articulated, and communicated to the research community.

* * * * *

Accomplishing a productive and effective relationship among researchers, federal research managers, and policy specialists will require new working arrangements. The CCRI will devote attention to the type of institutional changes necessary to forge effective interaction between research processes and policy development.

For policy development related to mitigation, it will be difficult to generate a true representation of salient decisions.

* * * * *

Based on the regional and sector-specific research that has been conducted over the last decade, preliminary target areas for accelerated research that will be considered include air quality; water availability and quality; forest and wildlife management; drought; and public health.

These draft statements seem to shift the express focus for which the CCRI was “created” by the President away from the “key questions” identified by the NAS and the “study areas of scientific uncertainty” toward a focus on decisions and contributing to “decision support,” and away from an emphasis on energy policy toward non-energy issues. That shift is inappropriate. Climate change research should be aimed at resolving uncertainties and other issues raised by the NAS. It should help to formulate policy and related decisions. It should not convey the impression, implied or otherwise, that policy decisions “influence the focus of climate change research programs” of the CCRI. The NAS did not suggest a shift from energy policy “to a broader agenda.” We believe that the draft should focus on the reasons for the creation of the CCRI as expressed by the President.

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

VII. Specific Comments on Chapter 4:
Decision Support Resources

Page 38, lines 8-10: “Decisionmakers, as defined here, are persons from both the public and private sectors engaged in climate change policy development and implementation and in identifying relevant issues and questions for researchers and include resource managers and stakeholders.”

Page 40, line 8, delete “and pollution other than carbon dioxide (CO₂).”
Page 41, line 23, delete “to other pollutants,” and insert “to pollutants.”

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

VIII. Overview Comments on Chapter 13: **Reporting and Outreach**

Overview Comment: We do not think this chapter is particularly relevant to the development of a strategic research plan. In large measure, it is partly a restatement of ongoing activities of the U.S. Global Change Research Program, which includes the National Global Change Research Plan, as defined in section 2 of the Global Change Research Act of 1990. Section 104(d) of the 1990 Act provides that the Plan “shall provide recommendations for collaboration within the Federal Government and among nations to,” among other things, “establish, develop, and maintain information bases,” and “combine and interpret data from various sources to produce information readily usable by policymakers attempting to formulate effective strategies for preventing, mitigating, and adapting to the effects of global change.” In addition, as noted in this chapter (p. 151), the Global Climate Research Office was established by section 204 of the 1990 Act “to disseminate to foreign governments, businesses, and institutions, as well as the citizens of foreign countries, scientific research information available in the United States which would be useful in preventing, mitigating, or adapting to the effects of global change.” The section lists six categories of such information for dissemination, including “reducing energy consumption through conservation and energy efficiency,” “promoting the conservation of forest resources which help reduce the amount of carbon dioxide in the atmosphere,” and “assisting developing countries in ecological pest management practices and in the proper use of agricultural, and industrial chemicals.”

Rather than address these statutory requirements, the draft explains (p. 149) that improved “coordination, reporting, and outreach among federal agencies are required to make research results and decision support resources more readily available and useful to stakeholders.” It states that this “reporting and outreach plan consists of working with two kinds of stakeholders”:

The first includes those who need or are affected by climate information, including policymakers, resource managers, the scientific community, the private sector, non-governmental organizations (NGOs), and the international community. The second kind of stakeholder includes those involved in education—whether it is the general public, K-12 students or those who communicate information (i.e., media, educators).

These “stakeholders” are not “federal agencies,” nor are they the entities listed in the 1990 Act. Given the importance of the research, as emphasized by the President, and budgetary constraints, the reporting of results must be more focused according to the statutory requirements. In its present form, this chapter should be abandoned.

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

**IX. Overview Comments on Chapter 14:
International Research and Cooperation**

The chapter states (p. 160):

Climate modeling capabilities have improved dramatically in recent years and can be expected to continue to do so. As a result, U.S. scientists are now able to model Earth system processes and their coupling on a regional and global scale with increasing precision and reliability.

This statement is inconsistent with comments made about modeling reliability in Chapter 1. For example, Chapter 1 states (p. 7):

However, at this point model projections of the future regional impacts of global climate change are often contradictory and are not sufficiently reliable tools for planning.

We are particularly concerned about the reliability of model projections of the future regional impacts of global climate change.

Reviewer's name, affiliation: Fang/Holdsworth-Edison Electric Institute.

**X. Overview Comments on Part II:
"The U.S. Global Change Research Program"**

First Overview Comment (pp. 131-43): Chapter 12 does include priorities for the U.S. Global Change Research Program (USGCRP) research elements. However, the priorities are described without any sort of ranking, making the prioritization little more than a summary. As stated earlier, the President wants the U.S. Climate Change Research Initiative (CCRI) to "study areas of scientific uncertainty and identify priority areas of scientific uncertainty and identify priority areas where investments can make a difference."

Establishing real priorities for the separate research elements, as well as for the linkage between those elements, could save time and resources. However, flexibility must also be built into the priorities to allow for new information to shape possible changes in the prioritization.

Reviewer's name, affiliation: Fang/Holdsworth-Edison Electric Institute

Second Overview Comment (pp. 131- 37): The draft frequently refers to "the next decade" as though the time frame for all the "Products and Payoffs" for the research elements will be completed within that time frame. However, "Human Contributions and Responses to Environmental Change" does not include any time frames for its "Products and Payoffs," while other elements, like "Water Cycle," have time frames for its "Products and Payoffs" that can range as high as 15 years.

While the next decade will be an important time for many of the research elements, not all of the expected products are anticipated to be finished in that time frame. However, by focusing on that time frame, the draft raises expectations that the research elements will be completed within that period. Again, time and resources can be saved by establishing appropriate timetables for all work and then including that information when prioritizing the work.

Reviewer's name, affiliation: Fang/Holdsworth-Edison Electric Institute.

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**EDISON ELECTRIC
INSTITUTE**

January 17, 2003

The Honorable James R. Mahoney, Ph.D.
Assistant Secretary of Commerce for
Oceans and Atmospheres, and
Director, Climate Change Science Program
U.S. Department of Commerce
Suite 250
1717 Pennsylvania Avenue, N.W.
Washington, D.C. 20006

Dear Dr. Mahoney:

The Edison Electric Institute (EEI) appreciates the significant efforts undertaken by the Administration in developing the November 11, 2002, draft "Strategic Plan for the Climate Change Science Program." The draft plan is a "vehicle to facilitate comments and suggestions" on the proposed "climate and global change" research needs of the U.S. by stakeholders, such as EEI, scientists and others who attended the Program's three-day workshop last month. We also appreciate the opportunity to review the four White Papers prepared in support of several chapters of the draft plan posted on the Web on November 26 and 27, 2002.

EEI is the association of our nation's shareholder-owned electric utilities and industry affiliates worldwide, with 200 member companies in the United States serving more than 90 percent of all customers served by the shareholder segment of our industry and 48 affiliate members in 17 countries. We have a long history of participation in global climate matters, including the development of the several assessment reports of the Intergovernmental Panel on Climate Change (IPCC) that relies heavily on research results from the U.S. and elsewhere, and the development and continuing efforts to implement the Framework Convention on Climate Change (FCCC), such as occurred last fall at the FCCC's eighth session of the Conference of the Parties (COP-8) in New Delhi, India.

COP-8 adopted conclusions that are relevant to the draft U.S. plan on the importance of an integrated international effort on research and systematic observation areas of need. COP-8 also adopted, with U.S. backing, the Delhi Declaration on Climate Change and Sustainable Development. It emphasized, among other things, that adaptation to the "adverse effects of climate change is of high priority for all countries," as well as the promotion of "sustainable development." The Declaration added, "Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each

James R. Mahoney, Ph.D.
January 17, 2003
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[FCCC] Party and should be integrated with national development programmes taking into account that economic development is essential for adopting measures to address climate change.”

Last February President Bush established the Climate Change Science Program (CCSP) to coordinate and direct research efforts of climate and global change. The CCSP is to report to an interagency group that in turn reports to the Cabinet-level Committee on Climate Change Science and Technology Integration (also established by the President last February). The CCSP includes the U.S. Global Change Research Program (USGCRP) authorized by the Global Change Research Act of 1990 (15 U.S.C. sec. 2921 *et seq.*) and the Climate Change Research Initiative (CCRI) announced in June 2001 by the President. We note that Part I of the draft strategic plan, which was prepared by several federal agencies of CCSP, relates to the CCRI; Part II, to the USGCRP; and Part III, to communication, cooperation and management.

Clearly, a strong near- and long-term research program that addresses the significant areas of outstanding uncertainties in the understanding of human-induced – as opposed to naturally occurring – climate change is a key element in the development of future policies and measures by both the public and private sectors. We welcome the efforts of the Administration to structure, improve and accelerate that research.

However, we are concerned that despite the June 11, 2001, directive of the President that the Secretary of Commerce “set priorities for additional investments in climate change research,” the draft plan does not specify priorities for the research identified therein. All of the research appears to have the same importance or urgency even though it would seem that some of the research areas should clearly precede others in order to be effective and timely.

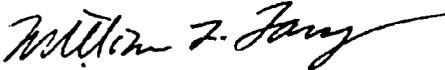
We are also concerned about establishing time frames of 2-4 years, particularly without also establishing priorities, for all of the CCRI research areas and for some of the USGCRP research areas. While we recognize the need to demonstrate progress and to keep pressure on the researchers and the sponsoring agencies, the workshop showed that such times frames are likely to be unrealistic and disappointing. We believe a milestone approach would be a better way forward in achieving the President’s desire to “increase our knowledge” and to be “creative” and “flexible.”

Based on our background and experience, EEI takes the opportunity to comment in more detail on this important and helpful draft strategy document. Our detailed comments are enclosed in accordance with the CCSP “Format for Comments” guidance.

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If you have any questions about our comments, please contact me at (202) 508-5617 (or bfang@eei.org) or Eric Holdsworth, Director, Climate Programs, at (202) 508-5103 (or eholdsworth@eei.org).

Sincerely,



William L. Fang
Deputy General Counsel
and Climate Issue Director

WLF:fhg
Enclosure
cc (w/ enclosure):

Dr. Harlan Watson
Senior Climate Negotiator and Special Representative
U.S. Department of State

Philip A. Cooney, Esq.
Chief of Staff
Council on Environmental Quality

Enclosure
January 13, 2003

**COMMENTS OF THE EDISON ELECTRIC INSTITUTE
ON THE DRAFT STRATEGIC PLAN FOR THE
ADMINISTRATION'S CLIMATE CHANGE SCIENCE
PROGRAM**

This enclosure provides EEI comments on the draft and related White Papers in the CCSP format.

I. Background Information

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II. Overview Comments on Chapter I:
Introduction – Climate and Global Change:
Improving Connections Between Science and Society

First Overview Comment: The term "climate change" first appears in Chapter I (p. 8, line 11) and as part of the term "climate and global change" (p. 8, lines 21 and 25). Both terms are frequently used in the draft plan. However, neither term is defined in the draft, although the term "global change" is defined in section 2 of the Global Change Research Act of 1990 as "changes in the global environment (including alterations in climate, land productivity, oceans or other water resources, atmospheric chemistry, and ecological systems) that may alter the capacity of the Earth to sustain life." Similarly, the term "Global change research," which is also used in the draft, is defined in section 3 of that Act. We presume that both definitions are applicable to the draft strategic plan even though they are not spelled out therein. However, there is no such statutory definition of the term "climate change" in the 1990 Act.

We are concerned about the lack of a definition in the draft of that term because usage of the term differs, as shown by the Intergovernmental Panel on Climate Change (IPCC) in a footnote to its Summary for Policymakers (SPM) of the Working Group I's contribution to the IPCC's Second and Third Assessment Reports. The footnote states:

Climate change in the IPCC Working Group I usage refers to any change in climate over time whether due to natural variability or as a result of human activity. This differs from the usage in the Framework Convention on Climate

Change where climate change refers to a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.

The draft strategic plan indicates that it is focusing on a "set of uncertainties about the global climate system" referenced by the National Academy of Science (NAS) in its 2001 study requested by the Administration, "Climate Change Science: An Analysis of Some Key Questions," which examined the IPCC's SPM for Working Group I of the Third Assessment Report. One question asked of the NAS by the Administration was: "Are greenhouse gases causing climate change?" The NAS responded:

The IPCC's conclusion that most of the observed warming of the last 50 years is likely to have been due to the increase in greenhouse gas concentrations accurately reflects the current thinking of the scientific community on this issue. The stated degree of confidence in the IPCC assessment is higher today than in was 10, or even 5 years ago, but uncertainty remains because of (1) the level of natural variability inherent in the climate system on time scales of decades to centuries, (2) the questionable ability of models to accurately simulate natural variability on those long time scales, and (3) the degree of confidence that can be placed on reconstructions of global mean temperature over the past millennium based on proxy evidence.

A "Glossary" to the SPM for the Second Assessment Report comments further on the IPCC usage of the term "climate change" as follows:

Climate change as referred to in the observational record of climate occurs because of internal changes within the climate system or in the interaction between its components, or because of changes in external forcing either for natural reasons or because of human activities. It is generally not possible clearly to make attribution between these causes. Projections of future climate change reported by IPCC generally consider only the influence on climate of anthropogenic increases in greenhouse gases and other human-related factors.

While it may be difficult at times to "make attribution between these causes," it is important for the CCSP to avoid conveying the implication or assumption that all climate changes are attributable to "human activities." They clearly are not. Given the Administration's question to the NAS and the NAS's response, the draft should indicate which "usage" of climate change is applicable in carrying out the U.S. strategic plan. The IPCC's definition may be the most appropriate.

Second Overview Comment (section 3, p. 11): This section sets forth "three guiding principles" that underpin the "objectivity, integrity, and usefulness" of the CCSP's "research and reporting."

The first principle is that the “scientific analyses conducted by the CCSP are policy relevant but not policy driven.” It appears to mimic an almost identical principle set forth in section 4.4.1 of the “Principles Governing IPCC Work” and applicable to IPCC Reports, including its Synthesis Report (SR), which were developed and adopted in 1999 by the IPCC meeting as an intergovernmental body, not as a scientific body. That section states that the SR should address a “broad range of policy-relevant but policy-neutral questions approved by the Panel” (*i.e.*, the IPCC). At that same session, the IPCC went on under then Chairman Robert Watson’s direction to develop the questions for use in the SR. The SR responses, like the questions, were approved and adopted by the IPCC, also meeting as an intergovernmental body in 2001.

The second principle is that the CCSP analyses should “specifically evaluate and report uncertainty” and the third is that the CCSP “analysis, measurements, projections and interpretations shall meet two goals: scientific credibility and lucid public communication.”

Each principle is expressed with reference to “CCSP analyses,” not to CCSP “research and reporting.” None of the principles is elaborated sufficiently in the draft to understand how it is to be applied in the context of such “CCSP analyses.” With greater elaboration or explanation, they may be more helpful.

Further, the CCSP draft strategic plan states (p. 11) that it is “built around a carefully constructed set of questions and objectives” and that the “research questions” are intended to “focus on broad science issues . . . supported by more detailed questions and objectives that can be addressed in scientific research initiatives and projects” funded by the federal government. The “challenge,” according to the draft (p. 10), is:

“to focus attention on key climate change issues that are important for public debate and decisionmaking, while maintaining sufficient breadth to facilitate the discovery of the unexpected. Establishing a careful balance between focus and breadth is essential if scientists are to develop knowledge of the intersections between natural variability and potential human impacts on the Earth System.”

All of this requires constant oversight and coordination by the CCSP to ensure that the strategic plan is implemented and the results reported, all on a timely basis. The reference to the “CCSP analyses” function in the context of three “principles” seems extraneous to the CCSP ensuring this “balance.” To our knowledge, there is no discussion in this draft of the need for such CCSP analyses; how or when the analyses would be conducted or how or when the researchers, stakeholders, and the public would review them; or whether there would be a peer-review process. In short, the purposes of this section need to be reexamined and explained, or this section should be deleted.

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

III. Specific Comments on Chapter I Introduction:
“Climate and Global Change: Improving Connections
Between Science and Society”

Page 11, section 3, delete and renumber section 4 “The Research Strategy” as section 3.

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

IV. Overview Comments on Part I:
“Overview of the Climate Change Research Initiative”

Overview Comment (p. 15): The February 14, 2002, “New Approach” to the challenge of global change states (tab 5, p. 24) that “on June 11, 2001 the President announced the creation” of the U.S. Climate Change Research Initiative (CCRI) to “study areas of scientific uncertainty and identify priority areas of scientific uncertainty and identify priority areas where investments can make a difference.” The document added:

The CCRI promotes a vision focused on the effective use of scientific knowledge in policy and management decisions, and continued evaluation of management strategies and choices.

* * * * *

The CCRI will improve the integration of scientific knowledge, including measures of uncertainty, into effective decision support systems and will adopt performance metrics and deliverable products useful to policymakers in a short time frame (2-5 years).

However, the draft strategic plan lacks any prioritization of the research listed for the CCRI research and states (p. 15) that the “CCRI programs will produce” such deliverables in a 2-4 year time frame rather than the “2-5 years” range noted by the President last February. We are concerned about this failure to prioritize and that even a 2-5 year time frame may be unrealistic.

Chapters 2 and 3 of the draft covers the CCRI areas and provide an extensive list of “Research Needs” with a list of “Products and Payoffs” or deliverables. However, there are no priorities established in the draft for the research and related deliverables. Indeed, all seem to have the same priority. Further, except in the case of the North American Carbon Program (pp. 19-20) and in the case of scenario development (pp. 46-47), there are also no timetables for the deliverables in Part I. This is in contrast to Part II (which is intended to address long-term needs), where in the case of many “Products and Payoffs” there are numerous instances of a schedule for each deliverable, some of which are also 2-4 years.

In the case of scenarios, the draft states (p. 46) that a “specific set of scenarios” to address “relevant policy and resource management questions—at the national, regional, and sectoral levels—will be developed in collaboration with stakeholders” and it even indicates how the scenarios will be used. The time frame assigned is two years. It adds (p. 47) that reports “summarizing insights relevant to the questions posed by the decisionmakers and

regional/sectoral resource managers, along with an analysis of the uncertainty, will be written" also in two years. It is unclear whether these two "2 years" will run simultaneously or consecutively. Preceding these descriptions and statements of "2 years" is the following (p. 46):

CCRI scenario development will go beyond past scenario activities such as those of the IPCC. Decisionmakers, resource managers, and other stakeholders will be engaged to help identify the types of scenarios that could be used to provide them with timely and useful information. The CCRI will develop logical and internally consistent scenarios with input from the full range of relevant stakeholders, which potentially include environmental non-governmental organizations (NGOs), industry representatives, natural resource managers, government agencies, and research scientists. It will undertake independent analysis to extract up-to-date information on projections for key variables (e.g., demography; technology characteristics and costs; and economic growth and characteristics) and the relationship of key driving forces to environmental change (e.g., land use and land cover) and adaptive capacity. The CCRI will coordinate its scenario development plans with the new IPCC scenario efforts. The IPCC may be interested in adopting some of the CCRI scenarios or combining CCRI and IPCC efforts.

However, the draft fails to explain the process for such "input" and coordination and how long it will take, although the draft lists (p. 42) as "Products and Payoffs" the selection of a "set of potential policy questions that require information support from the climate change community through stakeholder/scientist interactive dialogue" to "influence the development of scenarios (6 months)." To our knowledge, the U.S. Global Change Research Program (USGCRP) has not, since its establishment in 1989, undertaken to obtain "input" from the "range of relevant stakeholders" that include EEI and our members. The USGCRP did not seek public input in publishing the "Our Changing Planet" report on the USGCRP under the 1990 Act. The lack of such experience in gaining public "input" would certainly make it difficult to accept the two "two-year" time frames noted above for the scenario "Products and Payoffs."

As to coordination of "scenario development plans with the new IPCC scenario efforts," we bring to your attention an article in the November 27, 2002, edition of the "National Post" (published in Canada) that is headed "Leading economists want a full review of the UN's 100-year economic models for climate change, which they say contains 'material errors' that invalidate temperature forecasts." The article states:

A vocal group of economists around the world – including some of the leading figures in the field of global economic modeling – believe the core economic analysis behind the United Nations climate change initiative is based on seriously flawed modeling principles. If their analysis is correct, the central specific tenets of global warming, including the 100-year carbon emissions forecasts and temperature increases, are likely grossly exaggerated.

Contrary to popular belief, the theory that the world is heading for major temperature increases over the next century is not primarily a scientific issue. The main framework for long-term predictions that temperatures could rise up to 4.5 degrees between now and 2100 is based in large part on economic models, not

science models. But according to many economists, the economic models used by the IPCC contain what are described as "material errors." These technical errors, which include what might be deliberate use of inappropriate exchange rates and unbelievably high growth rate assumptions, have major implications. The possibility that the central economic foundation for global warming might be riddled with errors will be brought before the IPCC Bureau next month, according to Dr. Rajendra Pachauri, head of the IPCC. In a letter to Ian Castles, an Australian economist who believes the IPCC's economic forecasts are widely off base, Dr. Pachauri said he planned to initiate a "full consultation" to get to the bottom of the issue.

Mr. Castles, former head of Australia's statistic bureau and department of finance, sounded the alarm over the economic projections last August in a letter to Dr. Pachauri. In the letter, distributed to associates around the world, Mr. Castles said it is important "that governments be advised as soon as possible that the economic projections used in the IPCC emissions scenarios are technically unsound."

* * * * *

It is from these "fantastic assumptions," says Mr. Castles in his letter to the IPCC, that the official modelers accommodated soaring emissions growth estimates. In the emissions scenario that accompanies the growth rates in the chart nearby, for example, the IPCC Special Report on Emissions Scenarios (SRES) estimated that in this decade alone carbon emissions would increase by 800 million tones in the developing world. "In other words," writes Mr. Castles, "the modelers assumed that increases in emissions in each of the SRES developing regions would be greater in the current decade than the increase for the world as a whole between 1990 and 2000."

On the basis of these assumptions, which are "completely unrealistic," he says the SRES proposes that carbon emissions of fossil carbon dioxide will increase between 24% and 46% in developing countries during this decade. "On this basis, output [under this model] suggests that GDP per head could rise by around 50% in both regions." That's impossible, he suggests. It is already certain that growth of that magnitude will not occur. The IMF's latest World Economic Outlook forecasts don't even come close to forecasting such growth.

We understand that the IPCC Bureau at its December 2002 meeting discussed this correspondence with the IPCC and that the U.S. was represented. However, we do not know the results of that meeting. This is an important issue. The above article states that Castles "wants the IPCC to act quickly and not "delay reporting back until 2007 or some other date." The review "should take place immediately."

We realize that almost a year has passed since the President announced his "New Approach" last February, and that when he did so, he said his Fiscal Year (FY) 2003 budget included \$80 million "dedicated to implementation" of the CCRI and the National Climate

Change Technology Initiative, with half of that amount for CCRI “to be shared among five agencies.” However, the relevant appropriation for FY03 has not yet been enacted, it has taken nearly a year to develop the draft plan, it will not be finalized until later this spring, and the budget for FY '04 will not be transmitted to Congress for a few weeks. We presume that the Congress will want to consider the plan, together with the budget request. In short, it is unclear from the draft when the 2-4 year, 2-5 year and 6-month time frames would begin and whether the research will be fully funded by the Congress for fiscal years 2003 and 2004.

EEl is skeptical about the draft establishing a 2-4 year, 2-5 year or 6-month time frame for deliverables for the CCRI research needs, particularly in the absence of any setting of priorities and in the context of the uncertain status of appropriations. A better approach is to establish realistic milestones for such deliverables that take into consideration the congressional and budgetary processes. However, even milestones are inappropriate without a real effort to prioritize, taking into consideration the uncertainties and research needs discussed by the NAS.

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

V. Overview Comments on Chapter 3:
Climate Quality Observations, Monitoring and Data Management

The draft (p. 26) initially raises the question of how did “global climate change over the past fifty years and beyond,” and what “level of confidence” exists for this data “in attributing change to natural and human causes.” We are concerned that the draft seems, by this question, to focus on only “fifty years” of data. Additionally, under the heading “Products and Payoffs” (p. 28), the draft refers to “50 years and beyond.” We think 50 years is too brief a period on which to focus and note that the IPCC assessments cover a longer period, generally 100 years. Further, the draft discusses the need to incorporate historical data as far back as 150 years to better understand climate variability (p. 27):

Many individuals in many countries have gathered climate system variables using many different instrument types during the past 150 years to document climate system variability. In order to document and understand change from a historical perspective, we need to develop global, comprehensive, integrated, quality-controlled databases of climate system variables based on historical or modern measurements, and to provide the user community with open and easy access to these databases. We need to integrate these records as far into the past as is practical to reduce uncertainties in the climate trend estimates of individual parameters.

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

VI. Overview Comments on Chapter 4:
“Decision Support Services”

First Overview Comment (pp. 38-39): In his June 2001 remarks, the President said that the “United States has spent \$18 billion on climate research since 1990” which is “more than Japan

and all 15 nations of the EU combined,” but “we made” it clear that “we need to know a lot more.” The President added:

Today, I make our investment in science even greater. My administration will establish the U.S. Climate Change Research Initiative to study areas of uncertainty and identify priority areas where investments can make a difference.

I'm directing my Secretary of Commerce, working with other agencies, to set priorities for additional investments in climate change research, review such investments, and to improve coordination amongst Federal agencies. We will fully fund high-priority areas for climate change science over the next five years. We'll also provide resources to build climate observation systems in developing countries and encourage other developed nations to match our American commitment.

However, in several ways Chapter 4 of the draft seems to shift the above purpose of CCRI's criteria away from research enhancement aimed at resolving the uncertainties and related study areas identified by the NAS toward an emphasis of support for decision-making.

Reviewer's name, affiliation: Fang/Holdsworth-Edison Electric Institute.

Second Overview Comment (pp. 38-39): The draft asserts (p. 38) that the CCRI “will synthesize the results of the research conducted” by the CCSP “to present critical information to decisionmakers and resource managers both within and outside of the U.S. Government.” The draft then provides a definition of “decisionmakers” as those that “engage in the development of national policy such as setting national goals for greenhouse gas emissions and negotiating with other countries over international agreements” (p. 38, lines 8-10). We presume that this definition is intended to apply to the entire draft. However, there is a different definition of this term in Chapter 13 (p. 150).

The definition with its references to national policy and negotiations for “international agreements” clearly covers only federal and other governmental persons, to the exclusion of others in and outside government. Clearly, this definition is too narrow. It does not, for example, include resource managers or stakeholders in the private sector, even though the President himself urged last February 14 that the business and industrial community undertake voluntary programs as part of the Administration's “Business Challenge.” Undoubtedly, they also strive for greater research that provides “critical information,” as shown by the following (pp. 38-39):

One major key element of the CCRI is the ongoing engagement of scientists, decisionmakers, resource managers, and other stakeholders in identifying issues and questions, and providing data and products that include characterizations of uncertainties and the level of confidence associated with this information.

* * * * *

Research will provide continually stronger foundation to help decisionmakers evaluate the suite of alternative policy options and operational strategies.

Further, the definition is too limiting when it focuses on emissions and international agreements, and does not even allude to adaptation, sustainable development, jobs, the environment or the economy. Only a few weeks ago, the U.S. delegation to COP-8 in New Delhi joined the G-77 and China in firmly resisting proposals by the European Union and others to start international negotiations for 2013 and thereafter, saying that “we must also recognize that it would be unfair—indeed, counterproductive—to condemn developing nations to slow growth or no growth by insisting that they take on impractical and unrealistic greenhouse gas targets.”

We believe that if there is a need for a definition of “decisionmakers,” it must be more inclusive of the private sector and not be narrowly focused on government officials.

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

Third Overview Comment (p. 39): The draft states (p. 39) that “[o]ne component of the CCRI will focus on national-level challenges associated closely with the mitigation issue . . . associated with long-term global climate change” and “[i]n a parallel effort, the CCRI will accelerate development of a structure and process for integrating science with the decision processes to assist the development of regional and sectorial adaptation responses . . . to variability and long-term changes in climate.” We are concerned that the draft at this point appears to treat mitigation separately, although on a parallel path, from adaptation. Yet we note that last year, the U.S., in response to an invitation by the FCCC’s Subsidiary Body for Scientific and Technological Advice (SBSTA), submitted views “on priority areas of research for the scientific community” relevant to the FCCC (*FCCC/SBSTA/2002/MISC.15*), which called for an integrated assessment of alternatives and an integrated analysis of mitigation and adaptation options. The U.S. said:

The United States believes that adaptive responses and consideration of adverse effects of climate change are important areas for further investigation of potential responses, evaluation of their effectiveness and estimation of their costs. Further, the application of integrated assessment and decision analytical frameworks, which take into account economic, social, and biophysical data could allow for the prioritization of adaptive responses, as well as the relative emphasis on adaptation and mitigation.

* * * * *

The question of an economically efficient transition to a future that minimizes the economic and environmental consequences of climate change cannot be answered without simultaneous consideration of adaptation and mitigation. This should be a priority of the scientific and technical community.

In this regard a major concern is the inadequacy of decision models to capture both the benefits and costs associated with climate change and relevant mitigation strategies. The importance of a better assessment of accounting to reflect the full range of benefits and costs across sectors and on the nation's GDP, investment patterns, consumption levels, and jobs throughout the economy merit investigation.

We believe that the integrated approach to mitigation and adaptation suggested by the U.S. to SBSTA should be the focus of the CCRI. They should not be treated separately.

Reviewer's name, affiliation: Fang/Holdsworth-Edison Electric Institute.

Third Overview Comment (pp. 39-41): The President's February 14, 2002, "New Approach" document states (section 5, p. 24) that the CCRI was "created" to "study areas of scientific uncertainty" and to "identify priority areas where investments will make a difference." The document adds:

The CCRI promotes a vision focused on the effective use of scientific knowledge in policy and management decisions and continued evaluation of management strategies and choices. The "focus" of the investment is "on answering key questions" identified by the NAS.

However, Chapter 4, section 1 of the draft seems to have a different "focus," namely providing that the "CCRI will initiate a process" of identifying "policy decisions that should influence the focus of climate change research programs" and stating that "[o]ne goal of the decision-support efforts of the CCRI is to identify national-level decisions and to use the list to develop decision support activities as well as to prioritize climate change research" (p. 40). The draft states (pp. 39-41):

For the last decade, the primary focus of the development of climate change science information at the national level has been in response to the debate on energy policy.

* * * * *

It will be important to consider likely future policy decisions, because there can be lag time in the delivery of research results. The resulting articulation of potential policy questions will serve as a foundation for the subsequent decision support activities. One goal is to expand the range of decisions from an emphasis on energy policy to a broader agenda that includes greenhouse gases and pollution other than carbon dioxide (CO₂)....

* * * * *

Research projects that contribute to decision support will be supported under CCSP.

* * * * *

CCRI will attempt to establish mechanisms to foster a new class of working relationships to ensure that relevant issues are identified, articulated, and communicated to the research community.

* * * * *

Accomplishing a productive and effective relationship among researchers, federal research managers, and policy specialists will require new working arrangements. The CCRI will devote attention to the type of institutional changes necessary to forge effective interaction between research processes and policy development.

For policy development related to mitigation, it will be difficult to generate a true representation of salient decisions.

* * * * *

Based on the regional and sector-specific research that has been conducted over the last decade, preliminary target areas for accelerated research that will be considered include air quality; water availability and quality; forest and wildlife management; drought; and public health.

These draft statements seem to shift the express focus for which the CCRI was "created" by the President away from the "key questions" identified by the NAS and the "study areas of scientific uncertainty" toward a focus on decisions and contributing to "decision support," and away from an emphasis on energy policy toward non-energy issues. That shift is inappropriate. Climate change research should be aimed at resolving uncertainties and other issues raised by the NAS. It should help to formulate policy and related decisions. It should not convey the impression, implied or otherwise, that policy decisions "influence the focus of climate change research programs" of the CCRI. The NAS did not suggest a shift from energy policy "to a broader agenda." We believe that the draft should focus on the reasons for the creation of the CCRI as expressed by the President.

Reviewer's name, affiliation: Fang/Holdsworth-Edison Electric Institute.

VII. Specific Comments on Chapter 4:
Decision Support Resources

Page 38, lines 8-10: "Decisionmakers, as defined here, are persons from both the public and private sectors engaged in climate change policy development and implementation and in identifying relevant issues and questions for researchers and include resource managers and stakeholders."

Page 40, line 8, delete “and pollution other than carbon dioxide (CO₂).”
Page 41, line 23, delete “to other pollutants,” and insert “to pollutants.”

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

VIII. Overview Comments on Chapter 13:
Reporting and Outreach

Overview Comment: We do not think this chapter is particularly relevant to the development of a strategic research plan. In large measure, it is partly a restatement of ongoing activities of the U.S. Global Change Research Program, which includes the National Global Change Research Plan, as defined in section 2 of the Global Change Research Act of 1990. Section 104(d) of the 1990 Act provides that the Plan “shall provide recommendations for collaboration within the Federal Government and among nations to,” among other things, “establish, develop, and maintain information bases,” and “combine and interpret data from various sources to produce information readily usable by policymakers attempting to formulate effective strategies for preventing, mitigating, and adapting to the effects of global change.” In addition, as noted in this chapter (p. 151), the Global Climate Research Office was established by section 204 of the 1990 Act “to disseminate to foreign governments, businesses, and institutions, as well as the citizens of foreign countries, scientific research information available in the United States which would be useful in preventing, mitigating, or adapting to the effects of global change.” The section lists six categories of such information for dissemination, including “reducing energy consumption through conservation and energy efficiency,” “promoting the conservation of forest resources which help reduce the amount of carbon dioxide in the atmosphere,” and “assisting developing countries in ecological pest management practices and in the proper use of agricultural, and industrial chemicals.”

Rather than address these statutory requirements, the draft explains (p. 149) that improved “coordination, reporting, and outreach among federal agencies are required to make research results and decision support resources more readily available and useful to stakeholders.” It states that this “reporting and outreach plan consists of working with two kinds of stakeholders”:

The first includes those who need or are affected by climate information, including policymakers, resource managers, the scientific community, the private sector, non-governmental organizations (NGOs), and the international community. The second kind of stakeholder includes those involved in education—whether it is the general public, K-12 students or those who communication information (i.e., media, educators).

These “stakeholders” are not “federal agencies,” nor are they the entities listed in the 1990 Act. Given the importance of the research, as emphasized by the President, and budgetary constraints, the reporting of results must be more focused according to the statutory requirements. In its present form, this chapter should be abandoned.

Reviewer’s name, affiliation: Fang/Holdsworth-Edison Electric Institute.

**IX. Overview Comments on Chapter 14:
International Research and Cooperation**

The chapter states (p. 160):

Climate modeling capabilities have improved dramatically in recent years and can be expected to continue to do so. As a result, U.S. scientists are now able to model Earth system processes and their coupling on a regional and global scale with increasing precision and reliability.

This statement is inconsistent with comments made about modeling reliability in Chapter 1. For example, Chapter 1 states (p. 7):

However, at this point model projections of the future regional impacts of global climate change are often contradictory and are not sufficiently reliable tools for planning.

We are particularly concerned about the reliability of model projections of the future regional impacts of global climate change.

Reviewer's name, affiliation: Fang/Holdsworth-Edison Electric Institute.

**X. Overview Comments on Part II:
"The U.S. Global Change Research Program"**

First Overview Comment (pp. 131-43): Chapter 12 does include priorities for the U.S. Global Change Research Program (USGCRP) research elements. However, the priorities are described without any sort of ranking, making the prioritization little more than a summary. As stated earlier, the President wants the U.S. Climate Change Research Initiative (CCRI) to "study areas of scientific uncertainty and identify priority areas of scientific uncertainty and identify priority areas where investments can make a difference."

Establishing real priorities for the separate research elements, as well as for the linkage between those elements, could save time and resources. However, flexibility must also be built into the priorities to allow for new information to shape possible changes in the prioritization.

Reviewer's name, affiliation: Fang/Holdsworth-Edison Electric Institute

Second Overview Comment (pp. 131- 37): The draft frequently refers to "the next decade" as though the time frame for all the "Products and Payoffs" for the research elements will be completed within that time frame. However, "Human Contributions and Responses to Environmental Change" does not include any time frames for its "Products and Payoffs," while other elements, like "Water Cycle," have time frames for its "Products and Payoffs" that can range as high as 15 years.

While the next decade will be an important time for many of the research elements, not all of the expected products are anticipated to be finished in that time frame. However, by focusing on that time frame, the draft raises expectations that the research elements will be completed within that period. Again, time and resources can be saved by establishing appropriate timetables for all work and then including that information when prioritizing the work.

Reviewer's name, affiliation: Fang/Holdsworth-Edison Electric Institute.

The Policy Drought on Climate Change

The holiday season here in the United States was ushered in by a long-awaited report, heralded as laying out the administration's research agenda for climate change. It should interest those in the United States who may have been expecting something meaningful from their government, along with those in Europe and elsewhere who have come to expect disappointment.

The draft strategic plan for the combined U.S. Global Change Research Program (USGCRP) and Climate Change Research Initiative (CCRI) will not surprise the second audience and will tell the first that it has fallen victim to yet another triumph of hope over experience. This long report, available at <http://globalchange.gov/#USGCRP-CCRI>, offers a smorgasbord of moderate-intensity research efforts but merely urges more study on the role of anthropogenic sources in global warming. And it includes NONE of the following: analysis of the tradeoffs involved in a major regulatory push toward fuel economy in the transportation sector, proposed cap-and-trade or other incentives for reducing carbon dioxide emissions, and a research program aimed at sequestration technologies. It is, in short, a wait-and-see document.

The scientific evidence on global warming is now beyond doubt. Readers of these pages during the past couple of years have seen one careful study after another documenting the role of anthropogenic sources of carbon dioxide and other greenhouse gases in global warming; describing the impact of past and present climate change on marine and terrestrial ecosystems; and measuring rates of glacial melting in the Arctic, the Antarctic, and on the tops of low-latitude mountains.

Old hands have noted a strange resemblance between this effort and an earlier one. NAPAP, begun in the late 1980s, was a Reagan-era effort to study the acid rain problem (the acronym stands for National Acid Precipitation Assessment Project). It was cranked up with some fanfare and had the same leadership as the present study, in the person of James Mahoney (who is probably not to be blamed for either outcome). Like the present climate change plan, NAPAP essentially concluded that the problem needed more careful study. Ironically, it arrived too late, well after the administration of Bush I had decided to take acid rain more seriously. The result was that Congress, with considerable consultation and design coming from the White House, passed the 1990 Clean Air Act amendments containing tradable-permits provisions for limiting sulfur dioxide emissions.

It's probably way too much to hope that a similar rescue might be at hand in this case, but there are encouraging signals out there. First, it now appears that industry takes the problem more seriously than the government—surely a record. British Petroleum and other energy companies now clearly expect to be doing business in a low-carbon economy, and they are spending serious money to prepare for it. So is the electric power industry, where some leaders have already made voluntary carbon offsets. Meanwhile, hybrid cars are proliferating and the insurance industry is worried about its viability. Second, Congress may be noting that the politically popular goal of energy independence is linked to that of reducing global warming, and their constituents don't have to read *Science* to know that most glaciers are melting. It's in their daily newspaper. Third, some states, weary of federal inaction in the matter, have been passing rules of their own: California recently passed a tough law to limit future fleet carbon emissions standards, despite the usual complaints from auto manufacturers that the sky would fall.

Especially relevant to the scientific community is that there will be an independent review of the administration's plan by a National Research Council panel chaired by Tom Graedel of Yale. This is an opportunity for the National Academies to make a real difference. The Graedel panel should not be satisfied simply with a marginal critique of what's there in the report. What isn't there is important, so the panel needs to undertake an independent review of the situation, evaluate the seriousness of the challenge, and explain to the government what is missing from the report. The U.S. scientific community has come to expect a great deal from the Academies. In this case, the stakes are well beyond national interest, because the nonparticipation of the United States in the global effort on climate change is more than a national embarrassment. It's dangerous.

Donald Kennedy

The
administration's
draft strategic
plan is just a
wait-and-see
document.

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-EXECUTIVE OFFICE OF THE PRESIDENT-



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FROM: Phil Cooney

DATE: 7/19/03 PAGES: 2
(INCLUDING COVER SHEET)

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Subject: NYT - U.S. Is Pressuring Industries to Cut Greenhouse Gases

U.S. Is Pressuring Industries to Cut Greenhouse Gases

By **ANDREW C. REVKIN**

January 20, 2003

NYT

In an aggressive effort to show that President Bush's voluntary climate strategy can work, senior administration officials are traveling the country collecting written promises from industries to curb emissions of gases linked to global warming.

White House officials, insisting on concrete commitments measured in tons of gases, have rejected written offers from some industry groups to take nonspecific actions, several industry officials said. The administration and industry leaders plan to unveil a broad array of pledges at the White House on Feb. 6.

This is the administration's latest and most intensive effort to demonstrate that voluntarily controlling emissions can make mandatory reductions unnecessary. Mr. Bush has said such reductions will harm the economy. The effort has no teeth, officials and company representatives say, other than the growing realization in industry that without measurable success from voluntary reductions, it will become ever harder in coming years to stave off legislation requiring companies to act. Senators of both parties introduced such legislation in Congress this month, and states are acting on their own as well.

The administration's intent, once all the industries' commitments are tallied, is to meet Mr. Bush's stated goal: an 18 percent reduction, by 2012, in emissions of greenhouse gases for each unit of gross domestic product. Overall emissions would continue to grow, but more slowly.

Some company officials and other opponents of regulation have criticized the administration's effort as a mandatory program disguised as a voluntary one.

"This is meant to give the impression that the administration is doing something to control CO2 emissions," said Myron Ebell, a climate policy expert at the Competitive Enterprise Institute, which promotes free markets and limited government. "The danger is that they could easily get pushed from that position into actually regulating emissions, which would be very expensive, pointless."

At the same time, many scientists, environmental groups and political foes of Mr. Bush have said

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his target is so modest that no matter what industries do to achieve it, it will not help stem climate change. Most other industrialized countries have chosen to pursue binding reductions in emissions through the Kyoto Protocol, the climate treaty Mr. Bush rejected shortly after taking office.

"Over a decade ago, the United States committed to voluntary greenhouse gas reductions, and emissions have continued to rise," said Elizabeth Cook, an expert on corporate environmental policies at the World Resources Institute.

Citing an expanding body of research pointing to rising concentrations of carbon dioxide and other greenhouse gases as a cause of global warming, she and other critics said more action was needed.

White House officials said the new effort was just the beginning of a protracted campaign for voluntary reductions. "We're not declaring victory here and going home," an administration official said. "It'll be an ongoing thing from here."

Many big companies, expecting that regulation of greenhouse gases is inevitable, have already moved independently to set up voluntary caps and trading schemes in which companies that aggressively cut their emissions acquire pollution credits they can sell to other companies. The list of such companies includes most of the country's biggest energy, mineral and industrial concerns, including DuPont, Motorola, Waste Management Inc. and American Electric Power, a Midwestern utility that is the largest emitter of greenhouse gases in the Western Hemisphere.

The newest effort began on Thursday, with the start of the Chicago Climate Exchange, under which big manufacturers and energy companies agreed to cut emissions and trade credits with one another.

As they considered the administration's initiative, industries at first resisted committing themselves to specific targets.

The American Petroleum Institute, the oil industry's principal trade group, initially offered the White House a proposal for efforts on emissions, but without a specific timetable or targets. It cited the difficulty of getting all its members to agree on a single plan — and of measuring emissions from every facet of far-flung operations.

That was rejected, but after several rounds of discussions with the administration, the institute — like other industry groups — agreed to emissions changes that would mesh with Mr. Bush's 2012 goal.

"Oil, gas and other industries have all had significant discussions in trying to achieve the types of commitments the administration is desiring," said Robert L. Greco III, a senior manager at the institute. "Industry is committed to supporting this type of approach and is willing to step up to further the objective of the president's program."

Trade groups for companies pumping oil, mining coal, making cars, synthesizing plastics, smelting metals and manufacturing microchips have been recruited and have scrambled to settle on various targets for reducing or in some cases eliminating emissions.

These include some of the most influential voices for industry in Washington, the American Chemistry Council, National Mining Association, the Alliance of Automobile Manufacturers and the Edison Electric Institute, which represents power-plant owners.

Talks are still under way, and agreements could change, but some details are starting to emerge.

Under the program, magnesium producers have agreed to eliminate releases of a potent heat-trapping greenhouse gas, sulfur hexafluoride, by 2010. The gas is very rare, but each molecule has 23,600 times as much heat-trapping potential as a molecule of carbon dioxide.

Chip makers have said that by 2010 they will cut emissions of perfluorocarbons, another potent warming gas, 10 percent below 1995 levels.

Among other actions, all the major oil companies have agreed to scour pipelines and oil fields for leaking methane, another powerful heat-trapping gas. Coal companies have promised to expand efforts to capture methane and other greenhouse gases escaping from mines.

Individual companies are being asked to set more general goals.

Under a simultaneous initiative, also to begin on Feb. 6, the Business Roundtable, which represents 140 of the country's biggest companies, is working with the White House to obtain commitments from its members to start assessing their activities and considering ways to reduce their impact on climate.

Although that effort is theoretically voluntary, the Business Roundtable has already promised to deliver 100 percent of its members.

Some industry officials have quietly objected to the heavy pressure to sign on.

On Jan. 8, James L. Connaughton, chairman of the White House Council on Environmental Quality, addressed a private gathering of leaders of electric utilities at the Ritz Carlton in Naples, Fla. Several executives who were there said his insistence on substantive commitments prompted some of them to label the effort the "mandatory voluntary climate program."

The administration's push has intensified as criticisms of its cautious climate policies have increased, and more aggressive alternatives have been proposed.

On the day Mr. Connaughton spoke in Florida, Senator John McCain, Republican of Arizona, and Senator Joseph I. Lieberman, Democrat of Connecticut, unveiled a bill that would require restrictions on emissions. California and New York are moving toward restricting greenhouse gases from vehicles.

Administration officials acknowledge that they are trying to tread a fine line. They do not want to alienate voters in states like West Virginia, where the economy revolves around coal, a major source of carbon dioxide, but they do want to appease moderates, particularly women, for whom global warming is a growing concern.

But in seeking that path, many experts and lobbyists for different factions said, the administration could end up satisfying no one and doing little to solve the problem.

Many people involved in the White House effort, including government officials and executives from industries, say it is unlikely to lead to improvements much beyond those already taking place as the economy shifts from old-style manufacturing and businesses grow less wasteful.

And the effort, aimed mainly at manufacturing, encompasses only a small portion of America's greenhouse-gas emissions.

For example, while the auto industry is agreeing to curb gases from its assembly lines, it has not been asked — nor has it promised — to reduce gases from the tailpipes of the cars and trucks it builds.

Nevertheless, Ms. Cook, at the World Resources Institute, said there was some value in finally pushing a broad array of industries to start looking for ways to reduce their impact on climate. Once they have committed to change, she said, it will be hard for them to reverse course.



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Fact Sheet
Bureau of Oceans and International Environmental and Scientific Affairs
Beijing, Peoples Republic of China
January 16, 2003

Statement of the U.S.-China Working Group on Climate Change

The United States and the People's Republic of China agreed today to cooperate on a broad range of climate change science and technology activities at the third meeting of the U.S. - China Working Group held in Beijing, China, on January 14 - 16, 2003. The meeting of the working group was conducted under the agreement reached by President George W. Bush and President Jiang Zemin in February 2002 to undertake consultations to explore common ground and areas for cooperation on climate change.

Both sides recognized the importance of sustainable development in addressing the issue of climate change. They also agreed that economic growth will play a key role in this regard.

The respective delegations were led by Dr. Harlan Watson, Senior Climate Negotiator and Special Representative of the Department of State for the U.S. side, and by Mr. Gao Feng, Head of Delegation, Deputy Director-General, Department of Treaty and Law for the Chinese side.

The 14 member U.S. delegation included representatives from the U.S. Department of Agriculture Foreign Agricultural Service, U.S. Department of Commerce National Oceanic and Atmospheric Administration, U.S. Department of Energy and its Energy Information Administration and Pacific Northwest and Lawrence Berkeley National Laboratories, U.S. Department of State and the U.S. Environmental Protection Agency. The 27 member Chinese delegation included representatives from the Ministry of Foreign Affairs, State Development and Planning Commission and its Energy Research Institute, Ministry of Science and Technology, State Environmental Protection Administration and its Center for Policy Studies, China Meteorological Administration and its National Climate Center, Tsinghua University, Chinese Academy of Agricultural Sciences, Chinese Academy of Social Sciences and the Administrative Center for China's Agenda 21.

The United States and China identified 10 areas for cooperative research and analysis: non-CO2 gases, economic/environmental modeling, integrated assessment of potential consequences of climate change, adaptation strategies, hydrogen and fuel cell technology, carbon capture and sequestration, observation/measurement, institutional partnerships, energy/environment project follow-up to the World Summit on Sustainable Development (WSSD), and existing clean energy protocols/annexes.

The two sides further agreed to continue policy exchange and to review results of joint project cooperation. The fourth meeting of the U.S. - China Working Group on Climate Change will take place in the United States in May 2003.

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**EIA Voluntary Reporting of
Greenhouse Gases Program Enhancements**

**Summary of Leading U.S. and International
Registry and Trading Programs**

January 21, 2003

Prepared for:
U.S. Energy Information Administration

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**Science Applications
International Corporation**
An Employee-Owned Company

EIA Voluntary Reporting of
Greenhouse Gases Program Enhancements

**Summary of Leading U.S. and International
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Greenhouse Gas Registry and Related Programs

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Greenhouse Gas Offset Programs and Guidelines

13. [Oregon CO2 Standard and The Climate Trust](#)
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15. The Nature Conservancy—Standard Procedures for CO2 Offset Estimation in Projects Managed by The Nature Conservancy
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Multi-Pollutant Standards and Trading Systems

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Australia

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DRAFT

Matrix: Comparison of Leading U.S. and International Programs

January 21, 2003

SET 1		U.S.		California Climate Action Registry	
Issues	Current 1605(b) Program	EPA Climate Leaders	California Climate Action Registry	California Climate Action Registry	California Climate Action Registry
General Information					
Implementing Organization	U.S. DOE/EIA	U.S. EPA	California Climate Action Registry	California Climate Action Registry	California Climate Action Registry
Jurisdiction (Country, state, etc.)	United States	U.S. and International	California and U.S.	California and U.S.	California and U.S.
Years in Existence	9	1	0	0	0
Program Focus (GHGs, Multi-Pollutant, etc.)	GHGs, Sequestration	GHG emissions; sequestration	GHG Emissions	GHG Emissions	GHG Emissions
Program Components (registry, trading, offsets, etc.)	Registry	NA	Registry	Registry	Registry
Coordination of Registry/Project/Trading Programs	NA	NA	Preliminary coordination with other state programs and EIA 1605(b)	Preliminary coordination with other state programs and EIA 1605(b)	Preliminary coordination with other state programs and EIA 1605(b)
Overlap with Other Protocols/Programs	Serves as a model for many other registries.	Based on WRI/WBCSD GHG Protocol	Based on WRI/WBCSD GHG Protocol	Based on WRI/WBCSD GHG Protocol	Based on WRI/WBCSD GHG Protocol
Cross-Cutting Issues					
Program Management					
Program Principles	Voluntary program and Flexibility in reporting.	Relevance, completeness, consistency, transparency, accuracy	Relevance, completeness, consistency, transparency, accuracy (incorporated by reference)	Relevance, completeness, consistency, transparency, accuracy (incorporated by reference)	Relevance, completeness, consistency, transparency, accuracy (incorporated by reference)
Provision of Technical Assistance	Yes. Substantial assistance is provided.	Extensive access to EPA contractors	Approved Technical Assistance Providers (consultants); limited Registry assistance	Approved Technical Assistance Providers (consultants); limited Registry assistance	Approved Technical Assistance Providers (consultants); limited Registry assistance
Program Data Management Issues :	NA	No information.	Comprehensive data management, IT, and database system (web accessible)	Comprehensive data management, IT, and database system (web accessible)	Comprehensive data management, IT, and database system (web accessible)
Accounting Issues					
Coordination of Entity and Project/Offset Accounting and Reporting	Yes. Entity-level and Project-level reporting.	No information.	NA.	NA.	NA.
Consideration of Additionality and Meaning of "Creditable Reductions"	Not Addressed.	Use of targets implied additionality; high quality of reporting to render reductions "credible".	NA.	NA.	NA.
Metrics	Flexible. EIA provides several quantification protocols and modules.	Both absolute and ratio measures ok. Includes: productivity/efficiency ratios, intensity ratios, and percentage indicators.	Absolute only.	Absolute only.	Absolute only.

SET 1

U.S.		California Climate Action Registry
Issues	Current 1605(b) Program	EPA Climate Leaders
Participation Issues		
Voluntary vs. Mandatory at present	Voluntary	Voluntary partnership program
Voluntary vs. Mandatory in future	Voluntary	Voluntary partnership program
Types of Participant (sectors, etc.)	All-inclusive	All-inclusive.
Number of Participants per year	More than 200.	NA
Number of Participants to date	Approximately 222.	23 Charter Members
Compliance Requirements	NA	NA
Costs and Reporting Burden to Reporters	Information not available.	\$0 membership; other costs not known
Confidentiality	All EIA data is made publicly available. Exemption status is available under the FOIA act, however.	All inventory data is protected.
Program Incentives		
Ranking	None.	None.
Public Promotion, Outreach, Recognition for Participants	Imbedded in the program's principles.	Significant EPA promotion and self-promotion to public.

U.S.		California Climate Action Registry
Entity-Level Registry/Reporting Program	EPA Climate Leaders	California Climate Action Registry
Title	Voluntary Reporting of Greenhouse Gases (1605(b) Program.	Voluntary program/registry created by the State of California to offer companies support for protecting GHG reductions under a possible future regulatory regime.
Short Description	A GHG registry intended to record the results of voluntary measures to reduce, avoid, or sequester GHG emissions.	Among EPA's Voluntary Partnership programs, designed to work with industries to implement sophisticated GHG accounting standards of GHG Protocol.
Reporting Boundaries & Scope		
Geographic Boundaries for Entities	International	U.S.
Organizational Boundaries and Level of Reporting	Flexible. Management control or equity share.	Optional: <ul style="list-style-type: none"> Management control: control = report 100% (50% ownership = report 50%) Equity share: over 20% equity = report 100%; percent ownership for those not controlling
Operational Boundaries	Flexible. However, all entity-level reports should include direct	Both direct and indirect emissions

SET 1

U.S.	
Issues	Current 1605(b) Program
	emissions.
Covered Gases	The Kyoto six plus 35 other GHGs.
Baselines and Targets	
Baseline / Base Year Establishment	Historic baseline only (year of membership)
Baseline Protections Offered	None.
Corporate GHG Reduction Targets/Commitments	Must commit to aggressive corporate-wide reductions 5-10 years into future.
Accounting	
Emissions Accounting Requirements; Data Aggregation	Reporting by source, facility, and entity required; Guidance provided on applying purchased GHG reduction units to inventory
Emissions Accounting Methodologies Provided	Cross-sector and sector-specific guidance provided. Core modules include: <ul style="list-style-type: none"> ▪ Stationary combustion of Fossil Fuels ▪ Indirect Emissions from Electricity/Steam ▪ Mobile Sources ▪ Landfill Emissions ▪ HFC Emissions from Refrigeration ▪ Iron & Steel ▪ Cement Manufacturing ▪ Refrigeration Unit Manufacturing
De Minimis Standards	None.
Double Counting Solutions	EIA staff reviews the procedures used to calculate emissions.
Reporting/Registration Process	
Reporting Process	Annual reporting of complete inventory.
Review by Implementing Organization	Yes. EPA and its contractors work collaboratively with partners.
	Annual reporting of complete inventory. Limited.
	Significant flexibility. Reporting by facility is encouraged.
	Guidance on: <ul style="list-style-type: none"> ▪ Indirect emissions from electricity ▪ Direct emissions from mobile sources ▪ Direct emissions from stationary combustion ▪ Indirect emissions from co-generation, imported steam, and district heating/cooling ▪ Direct fugitive emissions from refrigeration
	5%
	No information.

SET 1

		U.S.	
Issues	Current 1605(b) Program	EPA Climate Leaders	California Climate Action Registry
Record Keeping Requirements	NA	No information.	All records should be kept by reporter, but will be housed in Registry database system.
Verification and Certification			
Verification & Certification Requirements/Process	Report must be certified by an authorized entity representative.	Optional guidance provided on verification.	Third party "certification" (verification/certification) required. Certifiers must be approved by California Energy Commission and Registry, and must follow Certification Protocol.
Validator/Verifier Qualifications	No information.	No information.	Verifiers must be approved by Registry and California Energy Commission.
Uncertainty	Electronic and manual edits are performed on each report by EIA staff.	Not required, but extensive guidance is provided for uncertainty analysis.	Addressed in context of certification; uncertainty must be below "minimum quality standard."
Quality Assurance	See above.	No information.	No information.

GHG Reduction Projects/Offset Program			
Title	Voluntary Reporting of Greenhouse Gases (1605(b)) Program.	NA	NA
Short Description	In addition to entity-level reporting, project-level reporting is available.	NA	NA
Project Boundaries & Scope			
Geographic Boundaries for Projects	International	NA	NA
Geographic Location of Investor	U.S.	NA	NA
Project Boundaries	Emissions, emissions reductions, and sequestration.	NA	NA
Temporal Boundaries	NA	NA	NA
Leakage	Reporters are asked to account for leakage.	NA	NA
Covered Gases	The Kyoto six plus 35 other GHGs.	NA	NA
Project Approval			
General Project Approval Considerations	All projects that result in GHG reduction or recovery are eligible.	NA	NA
Baselines, Quantification, and Monitoring			
Baseline Scenario	Baseline period of 1987-90 is encouraged, but flexible.	NA	NA
Additionality	Not addressed.	NA	NA
Quantification Requirements	Flexible.	NA	NA
Monitoring Requirements	None.	NA	NA

SET 1

U.S.		Current 1605(b) Program	EPA Climate Leaders	California Climate Action Registry
Issues				
Baseline Adjustment	NA	NA	NA	NA
Reporting/ Registration Process				
Reporting/ Submission Process	Reporters submit data by 1605(b) Forms.	NA	NA	NA
Review by Implementing Organization	Yes.	NA	NA	NA
Record Keeping Requirements	NA	NA	NA	NA
Project Monitoring	None.	NA	NA	NA
Validation/Verification/Certification/ Accreditation				
Overall Process	Report must be certified by an authorized entity representative.	NA	NA	NA
Validation Requirements/Process	None Required.	NA	NA	NA
Verification Requirements/Process	NA	NA	NA	NA
Certification Requirements/Process	NA	NA	NA	NA
Validator/Verifier Qualifications		NA	NA	NA
Uncertainty	Electronic and manual edits are performed on each report by EIA staff.	NA	NA	NA
Quality Assurance	See above.	NA	NA	NA
Assignment of Credits	NA	NA	NA	NA

U.S.		Current 1605(b) Program	EPA Climate Leaders	California Climate Action Registry
Issues				
Trading Program / System				
Title	NA	NA	NA	NA
Short Description	NA	NA	NA	NA
Trading Experience				
Years of Trading to date	NA	NA	NA	NA
Number of Trades to date	NA	NA	NA	NA
Average Trades per year (anticipated)	NA	NA	NA	NA
Trading Elements				
Gases Traded	NA	NA	NA	NA
Types of Trades	NA	NA	NA	NA
Sectors Traded	NA	NA	NA	NA
Compliance with Trading Rules	NA	NA	NA	NA
Credit Allocation				
Assignment of Credits (if different than above)	NA	NA	NA	NA
Credit for Past Reductions (if different than above)	NA	NA	NA	NA
Trading System				
Design of Trading System in general	NA	NA	NA	NA
Transfer Tracking System	NA	NA	NA	NA

SET 2

		International		
Issues	WRI/WBCSD GHG Protocol	ISO Standard (proposed)	UNFCCC CDM	
General Information				
Implementing Organization	WRI/WBCSD	ISO	UNFCCC CDM Executive Board	
Jurisdiction (Country, state, etc.)	Global	Global	Non-Annex I Parties ratifying Kyoto	
Years in Existence	4	0	0	
Program Focus (GHGs, Multi-Pollutant, etc.)	GHG Emissions, Sequestration	GHG Emissions, Sequestration	GHG Emissions, Sequestration	
Program Components (registry, trading, offsets, etc.)	Registry	Registry	Project Registry, Trading	
Coordination of Registry/Project/Trading Programs	NA	NA	CDM Registry is designed to support trading and will coordinate directly with Kyoto trading system	
Overlap with Other Protocols/Programs	Serves as a model for several other registries.	No information.	None.	
Cross-Cutting Issues				
Program Management				
Program Principles	Relevance, completeness, consistency, transparency, accuracy	General: Linkage, inclusivity, relevance; Accounting: consistency, completeness, no double counting, accuracy, transparency; Validation: independence, evidence-based approach	Article 12 of the Kyoto Protocol includes purposes of promoting sustainable development and supporting the UNFCCC.	
Provision of Technical Assistance	Through peer participation and technical staff.	NA	To be determined; likely to be case-by-case basis implemented by national authorities.	
Program Data Management Issues	NA	NA	To be determined.	
Accounting Issues				
Coordination of Entity and Project/Offset Accounting and Reporting	Projects must be incorporated into entity-level reports.	Projects must be incorporated into entity-level reports.	NA	
Consideration of Additionality and Meaning of "Creditable Reductions"	Not addressed.	Baseline should not be adjusted for organic growth or decline.	Tradable Certified Emission Reduction credits (CERs) must be based on verified and certified additional reductions.	
Metrics	Absolute emissions (intensity metrics not considered).	Both absolute and intensity metrics considered. Collected data must be of nature to make intensity ratios possible.	Absolute emissions only.	
Participation Issues				
Voluntary vs. Mandatory at present	NA	Voluntary	Voluntary	
Voluntary vs. Mandatory in future	NA	Voluntary	Voluntary	

SET 2

International	
Issues	UNFCCC CDM
Types of Participant (sectors, etc.)	All-inclusive.
Number of Participants per year	NA
Number of Participants to date	NA
Compliance Requirements	Participants must be eligible to participate, and meet other compliance obligations under the Kyoto Protocol.
Costs and Reporting Burden to Reporters	None, although as with all ISO standards, certification is required.
Confidentiality	Variable. Proprietary information (where so indicated) will not be disclosed without written consent. All non-confidential information will be made public.
Program Incentives	
Ranking	None.
Public Promotion, Outreach, Recognition for Participants	As with other ISO standards, ISO certification and labeling provides wide commercial recognition.

International	
Issues	UNFCCC CDM
Types of Participant (sectors, etc.)	All-inclusive.
Number of Participants per year	NA
Number of Participants to date	NA
Compliance Requirements	Participants must be eligible to participate, and meet other compliance obligations under the Kyoto Protocol.
Costs and Reporting Burden to Reporters	None, although as with all ISO standards, certification is required.
Confidentiality	Variable. Proprietary information (where so indicated) will not be disclosed without written consent. All non-confidential information will be made public.
Program Incentives	
Ranking	None.
Public Promotion, Outreach, Recognition for Participants	As with other ISO standards, ISO certification and labeling provides wide commercial recognition.

SET 2

International			
Issues	WRI/WBCSD GHG Protocol	ISO Standard (proposed)	UNFCCC CDM
	emissions from sources owned and controlled by reporting company; (2) Scope 2 accounts for indirect GHG emissions associated with the generation of imported/purchased electricity, heat, or steam; and (3) Scope 3 account for other indirect GHG emissions that are a consequence of the activities of the reporting company, but occur from sources owned or controlled by another company, such as employee business travel, etc.		
Covered Gases	All six Kyoto gases optional	All six Kyoto gases optional	NA
Baselines and Targets			
Baseline / Base Year Establishment	Historic Performance Datum (i.e., base year) only.	Any credible baseline or base year. For removals, may use three consecutive years as baseline.	NA
Baseline Protections Offered	NA	None. General stated objective is to help companies protect baselines.	NA
Corporate GHG Reduction Targets/Commitments	NA	Not addressed.	NA
Accounting			
Emissions Accounting Requirements; Data Aggregation	Emissions Reductions.	Flexible. Accounting must follow accurate, transparent, and reasonable quantification procedures. Data aggregation from facility, site, process level encouraged.	NA
Emissions Accounting Methodologies Provided	Provides guidance on emissions calculations, data collection and emissions factors.	In development.	NA
De Minimis Standards	None.	Latest draft have no minimum requirement, but required justification where de minimis emissions are omitted.	NA
Double Counting Solutions	Provides general guidance on managing inventory quality.	None provided.	NA
Reporting/Registration Process			
Reporting Process	NA	Entities must develop reporting plan, and then prepare report.	NA
Review by Implementing Organization	NA	In development.	NA
Record Keeping Requirements	NA	Guidance provided on ensuring	NA

SET 2

International			
Issues	WRI/WBCSD GHG Protocol	ISO Standard (proposed)	UNFCCC CDM
Verification and Certification		security of documentation and developing chain of custody and security, with written procedures.	
Verification & Certification Requirements/Process	Verification is optional but encouraged. In preparing for verification, a company should define its objectives, and consider the advantages and disadvantages for external verification. The <i>Corporate Standard</i> provides guidance on the scope of verification (i.e., the extent of data or facilities to be evaluated, managerial and procedural considerations, etc.), the process for selecting a verifier, and the material needed for GHG verification.	Validation includes evaluation of GHG inventory, protocol, baseline, and data management. Verification involves periodic review of monitored emissions and removals. Certification is not explicitly described.	NA
Validator/Verifier Qualifications		Some guidance provided on validator/verifier qualifications. Must be independent.	NA
Uncertainty	Provide general guidance on managing inventory quality.	Draft documentation considers inherent and systemic uncertainty; suggests reporters adopt appropriate strategies to address uncertainty.	NA
Quality Assurance	See above.	Specific guidance provided on document control and security. Little additional guidance on data quality assurance.	NA

GHG Reduction Projects/Offset Program			
Title	GHG Protocol: Project Module (Draft Framework)	ISO Draft GHG Reporting Standard	Clean Development Mechanism (CDM)
Short Description	A general framework intended to simplify the reporting process for GHG reduction projects.	General guidance on project accounting and reporting requirements.	As defined in Article 12 of the Kyoto Protocol, this serves as the mechanism for trading GHG reduction credits between non-Annex I (developing) countries and Annex I countries.
Project Boundaries & Scope			
Geographic Boundaries for Projects	Global	Global	Non-Annex I (developing) countries.
Geographic Location of Investors	NA	Global	Annex I countries.
Project Boundaries	One chapter will define project	Clear organizational and operational	Defined as all anthropogenic

SET 2

		International	
Issues	WRI/WBCSD GHG Protocol	ISO Standard (proposed)	UNFCCC CDM
Temporal Boundaries	boundaries. NA	boundaries must be drawn for projects. Project sharing may be reported via equity share or production sharing basis. Start and end dates must be clearly stated.	emissions under the control of the project participants that are significant and reasonable attributable to the project. Either (1) up to 7 years with two renewals, or (2) 10 years with no renewal.
Leakage	Will provide guidance and discussion.	Not specifically addressed.	Projects must identify leakage, and monitor and subtract leakage from project total.
Covered Gases	All six Kyoto gases optional	All six Kyoto gases optional	All six Kyoto gases optional
Project Approval			
General Project Approval Considerations	Provides guidance on project appraisal and eligibility.	General guidance provided on project validation and verification.	General guidance provided on project eligibility, validation, verification, and certification. Must prepare Project Design Document (PDD) for CDM Executive Board approval.
Baselines, Quantification, and Monitoring			
Baseline Scenario	Will outline emissions and non-emissions based tests.	Must be historic baseline. Project developers must prepare Baseline Study and Project Report documenting quantification and monitoring activities.	Options include historical emissions, emissions from a particular technology, or 5-year average of emissions from similar projects performing among top 20%.
Additionality	Will outline emissions and non-emissions based tests.	Not addressed.	Reductions must be real and additional. Additional means reductions below those that would have occurred in the absence of the project.
Quantification Requirements	Will provide guidance and calculation tools.	Project report must apply steps for quantification of direct and indirect emissions.	Baseline Methodology must be approved by CDM Executive Board.
Monitoring Requirements	Provides requirements at various stages in the project life cycle.	Existing monitoring methods recommended.	Monitoring Plan (part of PDD) required for verification, certification, and issuance of CERS.
Baseline Adjustment	NA	Regular adjustment is recommended, preferably annually, as needed.	Not addressed in CDM guidelines.
Reporting/Registration Process			
Reporting/Submission Process	NA	Reporting Plan should be prepared and submitted.	Process includes preparation of validation (also called "registration") and verification reports by approved

SET 2

		International	
Issues	WRI/WBCSD GHG Protocol	ISO Standard (proposed)	UNFCCC CDM
Review by Implementing Organization	NA	Not addressed.	Operational Entities (third parties) for CDM Executive Board acceptance. CDM Executive Board must provide acceptance of Validation and Verification Reports.
Record Keeping Requirements	NA	Guidance provided on ensuring security of documentation and developing chain of custody and security, with written procedures. Not addressed.	Not addressed.
Project Monitoring	Discusses how to prepare and conduct monitoring and verification plans.	Not addressed.	Not addressed.
Validation/Verification/Certification/ Accreditation Overall Process	NA	See below.	Project is validated by Operational Entity, registered with CDM Executive Board, then verified and certified by a different Operational Entity. Small-Scale CDM projects may be overseen by a single Operational Entity.
Validation Requirements/Process	NA	Validation includes evaluation of GHG inventory, protocol, baseline, and data management.	Review of PDD by Operational Entity, preparation of Validation Report, and registration. No specific requirements.
Verification Requirements/Process	Will provide a general overview of project crediting schemes and procedures.	Verification involves periodic review of monitored emissions and removals.	Different Operational Entity performs verification and prepares Verification Report. Periodic on-site inspections as needed, review of monitoring results. No specific requirements.
Certification Requirements/Process	NA	Certification is not explicitly described.	Operational Entity certified project based on Verification Report. No specific requirements.
Validator/Verifier Qualifications		Some guidance provided on validator/verifier qualifications. Must be independent.	Operational Entities must be accredited by CDM Executive Board.
Uncertainty	NA	Project reporter must describe all assumptions and risk factors over project period. Each risk should be expressed in probability terms.	Must be addressed in verification.
Quality Assurance	NA	Specific guidance provided on document control and security. Little additional guidance on data quality assurance.	Not addressed.

SET 2

		International	
Issues	WRI/WBCSD GHG Protocol	ISO Standard (proposed)	UNFCCC CDM
Assignment of Credits	(See Verification Requirements/Process.)	Not addressed.	Credits assigned based on certification by Operational Entity; to be applied during chosen (7- or 10-year) crediting period, as applicable.
Trading Program / System			
Title	Emissions Trading is not explicitly considered.	NA	CDM Registry
Short Description	NA	NA	Serves as basis for trading of credits established via CDM projects.
Trading Experience			
Years of Trading to date	NA	NA	0
Number of Trades to date	NA	NA	NA
Average Trades per year (anticipated)	NA	NA	NA
Trading Elements			
Gases Traded	NA	NA	All six Kyoto gases.
Types of Trades	NA	NA	Not addressed.
Sectors Traded	NA	NA	All-inclusive.
Compliance with Trading Rules	NA	NA	Not addressed in CDM guidance.
Credit Allocation			
Assignment of Credits (if different than above)	NA	NA	CERs are calculated by subtracting action GHG emissions from baseline, adjusting for leakage.
Credit for Past Reductions (if different than above)	NA	NA	None.
Trading System			
Design of Trading System in general	NA	NA	CDM Registry includes electronic database, use of various types of registry accounts.
Transfer Tracking System	NA	NA	CERs will be serialized based on commitment period, party of origin, CER (i.e., not other type of credit), unit number, and project identifier. Technical standards on tracking system are forthcoming.

SET 3

International (cont.)		Canada VCR & BPI	UK ETS
Issues	Australia		
General Information			
Implementing Organization	The Australian Greenhouse Office (AGO)	VCR: Voluntary Challenge and Registry, Inc.; BPI: NRCan, EcoGES, VCR, Inc., National Air Issues Coordinating Committee-Climate Change.	UK Government
Jurisdiction (Country, state, etc.)	Australian Federal Government	Canada	United Kingdom
Years in Existence	Greenhouse Challenge Program (GCP) - 7 years; Greenhouse Gas Abatement Program (GGAP) - 2 years; Emissions Trading System (ETS) - Proposed.	VCR: since 1998 BPI: since 2001	1
Program Focus (GHGs, Multi-Pollutant, etc.)	GHG Emissions, Emission Reductions, Sequestration, and emissions trading.	GHG Emissions, Sequestration	GHG Emissions
Program Components (registry, trading, offsets, etc.)	GHG Registry, Offsets and Sequestration, and a proposed trading system.	Registry	Emissions trading, registry, and a developing project scheme.
Coordination of Registry/Project/Trading Programs	None.	NA	The Registry and Trading systems function together.
Overlap with Other Protocols/Programs	None.	Influence by WRI/WBCSD GHG Protocol; coordination between VCR and BPI.	Yes. By mutual recognition between trading authorities.
Cross-Cutting Issues			
Program Management			
Program Principles	The GCP was originally developed as a joint effort with industry and is now part of a broader framework of policies and measures known as the National Greenhouse Strategy (NGS). GGAP: Four general themes guide project selection, including: Technology deployment; Regional GHG Partnerships; Built Environment and Infrastructure; Greenhouse Abatement Facilitation.	VCR: relevance, completeness, consistency, transparency, accuracy. BPI: guard against uncertainty, no credits offered, removes disadvantages to participants, reasonableness.	A flexible system designed to meet the commitments under the Kyoto Protocol and the UK CCP.
Provision of Technical Assistance	CCP membership offers access to	Some assistance from VCR, Inc. and	Only for development of Climate

SET 3

International (cont.)

Issues	Australia	Canada VCR & BPI	UK ETS
Program Data Management Issues	technical expertise in identifying, monitoring and forecasting greenhouse gas emissions. <u>GGAP</u> : The Australian Greenhouse Office will provide guidance to potential proponents in completing a proposal if requested. Not known.	BPI, respectively.	Change Agreements.
Accounting Issues		No information.	NA
Coordination of Entity and Project/Offset Accounting and Reporting	NA	NA	Project-level emissions are allowed under the UK ETS, but rules have not yet been fully developed.
Consideration of Additionality and Meaning of "Creditable Reductions"	<u>GCP</u> : Not required. <u>GGAP</u> : CCAP only supports projects that result in quantifiable and additional abatement not expected to occur in the absence of GGAP funding.	NA	An adjusted approach is used for calculating baselines.
Metrics	<u>GCP</u> : Companies have to report both an inventory of absolute emissions as well as develop performance indicators (quoted in per unit of production). <u>GGAP</u> : NA	Absolute, intensity, and other metrics allowable. For VCR, absolute are most preferred for Champion level status; intensity also encouraged. Additional information/guidance available from VCR, Inc.	Reporting protocols have been developed.
Participation Issues			
Voluntary vs. Mandatory at present	Voluntary	Voluntary	Voluntary
Voluntary vs. Mandatory in future	Voluntary	Voluntary	Voluntary
Types of Participant (sectors, etc.)	<u>GCP</u> : Any public or private organization in Australia. <u>GGAP</u> : To have a proposal considered for inclusion in the GGAP an organization must be one of the following: (1) An incorporated body located in Australia; (2) A local, State or Commonwealth government body; or (3) A consortium where the lead proponent is one of the above.	All-inclusive.	All-inclusive.
Number of Participants per year	<u>GCP</u> : About 200 new participants joined the program between July 2001 and June 2002. <u>GGAP</u> : 107 proposal were submitted during the first selection round in 2000, and 10 projects were selected.	NA	Up to 5,500-6,000.

SET 3

International (cont.)

	Australia	Canada VCR & BPI	UK ETS
Issues	71 proposals were submitted during 2001, and 5 were selected.		
Number of Participants to date	GCP: As of December 16, 2002 a total of 876 companies had signed agreements committing to reducing emissions. GGAP: 15 projects have been approved for funding.	VCR: 917 registrants; 208 Champion level reporters through 2002. 100% of several sectors participate in VCR. BPI: 7 participants since launch	34 Direct participants, 6,000 CCA participants, and 275 trading accounts.
Compliance Requirements	GCP: there are no penalties for non-compliance with company-specific GHG action plans. GGAP: Under negotiated Deeds of Agreement for the project grants, payments will be made upon the achievement of milestones. If milestones are not reached, payment will not be made.	NA	Financial incentives/Penalties have been established.
Costs and Reporting Burden to Reporters	NA	VCR: \$5,000 to join Council of Champions BPI: \$200 to join	No information.
Confidentiality	GCP: Whereas the Cooperative Agreement is confidential, the public profile provides the community with information about a company's GHG action and signifies its public commitment to taking up the Challenge. GGAP: Government agencies and external technical experts may examine proposals during the assessment phase and the Australian National Audit Office may request access to all relevant project files. Proposal developers must provide good reasons as to why any information included in the proposal should not be made public.	VCR: Documents treated as public unless otherwise requested by participant. Confidential reporting does not affect Champion level reporting, but is not eligible for Annual Leadership Awards. BPI: All BPI data collected online will be public except contact information and reported estimated net emissions reduction per action. Full SSL data security.	No information.
Program Incentives Ranking	None.	VCR: Use of rigorous Champion Reporting System including Gold, Silver, and Bronze levels. Use of point system to determine meeting of various reporting elements.	None.

SET 3

International (cont.)			
Issues	Australia	Canada VCR & BPI	UK ETS
Public Promotion, Outreach, Recognition for Participants	GCP: promotes the achievements of its participants, building public awareness and recognition for all members. Members may also use the Greenhouse Challenge Members' Logo on products and corporate information.	BPI: None. In addition to Champion program, VCR offers Annual Leadership Awards for wide recognition of achievement. (BPI participation promoted through VCR.)	NA

Entity-Level Registry/Reporting Program			
Title	Greenhouse Challenge Program (GCP)	VCR: Climate Change Voluntary Challenge & Registry BPI: Baseline Protection Initiative	Emissions Trading Registry (ETR)
Short Description	A joint voluntary initiative between the national Government and industry to abate greenhouse gas emissions. Participating organizations sign agreements with the Government that provide a framework for undertaking and reporting on actions to abate emissions.	VCR is non-profit partnership between industry and governments in Canada to promote GHG response in industry. BPI is.... Both coordinate with GHG Emission Reduction Trading Pilot (GERT), Canadian GHG Credit Registry, and other initiatives. BPI helps Canadian organizations ensure baseline protection under future regulatory systems.	Voluntary GHG registry designed to track emissions trading activities.
Reporting Boundaries & Scope			
Geographic Boundaries for Entities	Only operations in Australia can be included in inventory.	Emissions must occur in Canada	United Kingdom
Organizational Boundaries and Level of Reporting	Companies have significant flexibility in the definition of reporting boundaries. According to the 2002 Verification Guidelines reporting boundaries should reflect organizational control and be aligned with company financial reporting where possible.	VCR: Must report 100% where company has majority control. Equity share possible where there is significant influence. BPI: Similar to VCR; additional guidance provided.	Management Control. Entity-Level only.
Operational Boundaries	Direct emissions from onsite operations and indirect emissions from energy consumption and off-site waste disposal are required to be included. Activities that result in sequestration are also included. The Kyoto six.	VCR: Separate reporting for direct and indirect emissions encouraged. BPI: Only direct emissions eligible for protection.	Direct and Indirect emissions are included.
Covered Gases	All GHGs.	All GHGs.	Choice between CO ₂ only or the six

SET 3

International (cont.)		Australia	Canada VCR & BPI	UK ETS
Issues				Kyoto gases.
Baselines and Targets				
Baseline / Base Year Establishment	Companies are afforded a great deal of flexibility in the development of emission baselines, as long as the procedures used are consistent from year to year. Participants can choose to report emissions savings against the historical base-year or against a hypothetical baseline. The majority of participants have chosen to report emissions savings against a 'static efficiency' baseline. Not addressed.	<u>VCR</u> : Any base year acceptable; 1990 preferred. Points awarded for explanation of methodology. <u>BPI</u> : Reductions must have occurred since 1/1/1990. Extensive guidance on baseline adjustment. Baselines not to be adjusted prior to policy announcement.	Historic average annual emissions from 1998-2000.	
Baseline Protections Offered	Not addressed.	<u>VCR</u> : NA <u>BPI</u> : No specific policy for protections announced to date. BPI Manager to oversee protection process, based on verification documentation.	None.	
Corporate GHG Reduction Targets/Commitments	Small and medium sized companies are required to develop an action plan of specific GHG reduction measures and performance indicators, against which improvements can be monitored. In addition to these requirements, large size companies also have to develop "a forecast of expected abatement of emissions over a specific time period".	<u>VCR</u> : Targets required for Champion reporting, with points assigned for various actions and achievements. <u>BPI</u> : NA	Must be established individually.	
Accounting				
Emissions Accounting Requirements; Data Aggregation	Reporters are referred to the <i>AGO Factors and Methods Workbook</i> for guidance on inventory development. Companies have some flexibility in the development of their inventory, with the main focus being on consistency in methods used for inventory development and progress reporting. <i>The AGO Factors and Methods Workbook</i> The 2002 Verification Guidelines	<u>VCR</u> : Data aggregation recommended at facility level to be rolled up to provincial, national, and entity reports. <u>BPI</u> : Any absolute, direct reduction acceptable; biological sequestration not accepted until clearer international rules.	DPs report absolute emissions targets, CCA's choose either absolute or relative targets.	
Emissions Accounting Methodologies Provided	<i>The AGO Factors and Methods Workbook</i>	Some guidance provided on VCR website.	Reporting protocols have been established.	
De Minimis Standards	The 2002 Verification Guidelines	No specific level required or	The lesser of 10,000 tons of CO ₂ e or	

SET 3

International (cont.)

Issues	Australia	Canada VCR & BPI	UK ETS
Double Counting Solutions	state that verification shall be carried out on the basis of a <i>materiality threshold of 10%</i> , and includes aggregation and disaggregation within materiality. Not addressed.	recommended. For VCR, optional but must be documented. Not addressed.	1% of total emissions. Based on IPCC Good Practice guidance.
Reporting/Registration Process	Enterprises annually report to the Challenge on their progress in implementing the greenhouse actions they outlined in their cooperative agreements. Annual progress reports must contain a description of a company's progress relative to its action plan, a new emissions inventory and a description of new actions.	<u>VCR</u> : Preparation of Action Plan with annual Progress Reports. Action Plan must include senior mgmt endorsement, commitment to reporting, and base year quantification. Champion must also include corporate policy, management system description, identification of major GHG sources, GHG emission projections by gas type. <u>BPI</u> : Must register with national or Quebec-specific registries. Basic information required to register; total emissions reported annually.	DPs must register with the Government, and be in accordance with the program rules before reporting.
Review by Implementing Organization	No.	<u>VCR</u> : Documents reviewed by VCR. <u>BPI</u> : Not addressed.	Yes.
Record Keeping Requirements	NA	Not addressed.	NA
Verification & Certification Requirements/Process	Verification is conducted via independent third party verification. Approximately 30 random verifications are conducted during each verification round, covering a representative sample of Challenge members. The cost of verification is covered by the AGO. Verification is conducted through an expert appointed by the Government and agreed by the company being verified.	<u>VCR</u> : Verification required of senior mgmt endorsement, reporting commitment, and base year quantification. <u>BPI</u> : BPI program managers conduct validation (of reduction eligibility); verification required by third party. Specific rules not developed to date. Not addressed.	Must have emissions verified by an accredited verifier.
Validator/Verifier Qualifications	According to the 2002 Verification guidelines emission estimates should be systemically neither over nor under 'true' emissions, and	Encouraged.	See above.
Uncertainty			

SET 3

International (cont.)			
Issues	Australia	Canada VCR & BPI	UK ETS
	should reduce uncertainties as far as practicable. Most data sets are assumed to be normally distributed about the 'true' value, and are described using levels of confidence, most commonly the 95% confidence interval.		
Quality Assurance	The Greenhouse Challenge office has prepared "Greenhouse Challenge Independent Verification 2002 Guidelines" and provides technical instructions to verifiers.	Not addressed.	See above.

GHG Reduction Projects/Offset Program			
Title	Greenhouse Gas Abatement Program (GGAP)	NA	UK Emissions Trading Scheme (ETS) and Emissions Trading Registry (ETR)
Short Description	The objective of GGAP is to support activities that are likely to result in substantial GHG emission reductions, or substantial sink enhancement, particularly in the first commitment period under the Kyoto Protocol (2008-2012). Priority is given to projects that deliver abatement exceeding 250,000 tons of carbon dioxide equivalents (CO ₂ -e) per annum.	Same as entity-level reporting. Project reporting is not specifically addressed, but is acceptable as part of entity-level reports.	A project entry route to the ETS is being developed.
Project Boundaries & Scope			
Geographic Boundaries for Projects	Australia	NA	United Kingdom
Geographic Location of Investors	Australia	NA	NA
Project Boundaries	Direct Emissions; Indirect Emissions; Leakage; Embodied Emissions.	NA	To be determined.
Temporal Boundaries	Projects that result in emission reductions during 2008 to 2012 and beyond will be targeted.	NA	Proposed period until 12/31/2012.
Leakage	Leakage is mentioned as an issue that should be addressed, but no specific guidance on how to accomplishing this is provided.	NA	To be determined.

SET 3

International (cont.)

Issues	Australia	Canada VCR & BPI	UK ETS
Covered Gases	The Kyoto six.	NA	The Kyoto six.
Project Approval			
General Project Approval Considerations	All proposals are assessed in six ways: (1) The technical feasibility of the project; (2) The financial viability of the proponent; (3) The robustness of the project financial analysis, and the quality of the project planning and management; (4) The impact of the project on the wider economy; (5) Environmental impacts; and (6) the Risk to the Commonwealth that the program objectives will not be satisfied. A risk rating will be developed based on all of the information provided and omitted from the application.	NA	No information.
Baselines, Quantification, and Monitoring			
Baseline Scenario	CCAP only supports projects that result in <i>quantifiable</i> and <i>additional</i> abatement not expected to occur in the absence of GGAP funding.	NA	Projects must result in actual reduction of emissions in addition to BAU.
Additionality	CCAP only supports projects that result in <i>quantifiable</i> and <i>additional</i> abatement not expected to occur in the absence of GGAP funding.	NA	See above.
Quantification Requirements	Sources recommended by GGAP include: (1) The Australian National Greenhouse Gas Inventory. (2) Workbooks produced by the International Greenhouse Partnerships Office; (3) The Greenhouse Challenge sector specific workbooks.	NA	To be determined.
Monitoring Requirements	NA	NA	NA
Baseline Adjustment	The Commonwealth reserves the right to examine and revise the estimates of the abatement performance of a funded project.	NA	NA
Reporting/ Registration Process			
Reporting/Submission Process	Periodic reports on the progress of	NA	NA

SET 3

International (cont.)			
Issues	Australia	Canada VCR & BPI	UK ETS
Review by Implementing Organization	the project are required. The reporting period and exact requirements vary according to the nature and duration of the project. The Commonwealth may independently audit expenditure on the project or seek independent verification of abatement at any time throughout the term of the project.	NA	NA
Record Keeping Requirements	Not known.	NA	NA
Project Monitoring	NA	NA	NA
Validation/Verification/Certification/ Accreditation			
Overall Process	NA	NA	NA
Validation Requirements/Process	NA	NA	NA
Verification Requirements/Process	While independent (third party) verification of abatement outcomes is not required, it will increase the level of confidence in reported outcomes.	NA	NA
Certification Requirements/Process	NA	NA	NA
Validator/Verifier Qualifications	The Commonwealth may independently audit expenditure on the project or seek independent verification of abatement at any time throughout the term of the project.	NA	NA
Uncertainty	NA	NA	NA
Quality Assurance	The Commonwealth may independently audit expenditure on the project or seek independent verification of abatement at any time throughout the term of the project.	NA	NA
Assignment of Credits	NA	NA	Analogous to JI/CDM approach towards generating credits.

Trading Program / System	
Title	Emissions Trading System (proposed)
Short Description	Australia is currently engaging business and other stakeholders in developing of a long-term greenhouse strategy, focusing on a 20-30 year time frame. Emissions
	NA
	UK Emissions Trading Scheme (ETS) A voluntary GHG trading system.

SET 3

Issues

International (cont.)

	Australia	Canada VCR & BPI	UK ETS
	trading is one of many issues that may be considered in this context. Therefore, at this point in time, there is no guidance on the specific design of a potential emissions trading system. Background government and industry discussions on emissions trading can be obtained from AGOs' Emissions Trading Discussion Paper series (1999).		
Trading Experience	NA	NA	1
Years of Trading to date	NA	NA	275 trading accounts to date.
Number of Trades to date	NA	NA	About 150.
Average Trades per year (anticipated)	NA	NA	
Trading Elements			
Gases Traded	NA	NA	The Kyoto six.
Types of Trades	NA	NA	Everything are converted into CO ₂ e and traded.
Sectors Traded	NA	NA	Ten major energy intensive sectors and over 30 smaller sectors are included. All other organizations are listed as DP's.
Compliance with Trading Rules	NA	NA	Financial incentives/Penalties have been established.
Credit Allocation			
Assignment of Credits (if different than above)	NA	NA	DPs receive credits for emitting below their caps. CCAs receive credits if they beat their targets.
Credit for Past Reductions (if different than above)	NA	NA	No.
Trading System			
Design of Trading System in general	NA	NA	ETS and ETR function together smoothly. However, the UK system may prove to be incompatible to the proposed EU trading system.
Transfer Tracking System	NA	NA	All participants must have an account. Allowances are electronic and have unique serial numbers. The ETS tracks all transfers from the time ownership rights are established and until the credit is retired.

SET 4

Issues	International (cont.)
	Netherlands ERUPT/CERUPT
General Information	
Implementing Organization	Sender International, an agency of the Netherlands Ministry of Economic Affairs
Jurisdiction (Country, state, etc.)	International
Years in Existence	2
Program Focus (GHGs, Multi-Pollutant, etc.)	GHG Emissions, Sequestration
Program Components (registry, trading, offsets, etc.)	JI/CDM Project Registry; Emission Trading; and/or Emission Offsets
Coordination of Registry/Project/Trading Programs	Projects are designed to facilitate the creation of carbon credits.
Overlap with Other Protocols/Programs	Overlap with CDM and JI programs under the Kyoto Protocol.
Cross-Cutting Issues	
Program Management	
Program Principles	Compliance with Kyoto reduction commitments.
Provision of Technical Assistance	Yes, by the staff of Sender and other third-party verifiers.
Program Data Management Issues	No information
Accounting Issues	
Coordination of Entity and Project/Offset Accounting and Reporting	NA
Consideration of Additionality and Meaning of "Creditable Reductions"	NA
Metrics	Absolute reductions only.
Participation Issues	
Voluntary vs. Mandatory at present	Voluntary
Voluntary vs. Mandatory in future	Voluntary
Types of Participant (sectors, etc.)	All-inclusive.
Number of Participants per year	NA
Number of Participants to date	ERUPT – 5 contracts were signed in 2001. CERUPT – 13 countries host selected projects.
Compliance Requirements	Fines have been established for non-compliance.
Costs and Reporting Burden to Reporters	No information
Confidentiality	Project design documents are made

SET 4

		International (cont.)
Issues		Netherlands ERUPT/CERUPT
		public, allowing for stakeholder comments.
Program Incentives		
Ranking		NA
Public Promotion, Outreach, Recognition for Participants		NA
Entity-Level Registry/Reporting Program		
Title		NA
Short Description		NA
Reporting Boundaries & Scope		
Geographic Boundaries for Entities		NA
Organizational Boundaries and Level of Reporting		NA
Operational Boundaries		NA
Covered Gases		NA
Baselines and Targets		
Baseline / Base Year Establishment		NA
Baseline Protections Offered		NA
Corporate GHG Reduction Targets/Commitments		NA
Accounting		
Emissions Accounting Requirements; Data Aggregation		NA
Emissions Accounting Methodologies Provided		NA
De Minimis Standards		NA
Double Counting Solutions		NA
Reporting/Registration Process		
Reporting Process		NA
Review by Implementing Organization		NA
Record Keeping Requirements		NA
Verification and Certification		
Verification & Certification Requirements/Process		NA
Validator/Verifier Qualifications		NA
Uncertainty		NA
Quality Assurance		NA
GHG Reduction Projects/Offset Program		
Title		Netherlands ERUPT/CERUPT
Short Description		A program by which Dutch firms can invest in JJ projects in Central and

SET 4	International (cont.)
Issues	Netherlands ERUPT/CERUPT
Project Boundaries & Scope	Eastern Europe (ERUPT) and in CDM projects in developing countries in Africa, Asia, and Latin America (CERUPT), to meet Kyoto emissions reductions requirements.
Geographic Boundaries for Projects	ERUPT – Central and Eastern Europe; CERUPT – Africa, Asia and Latin America.
Geographic Location of Investors	The Netherlands.
Project Boundaries	Direct and indirect emissions.
Temporal Boundaries	2008-2012 (for ERUPT 3)
Leakage	Guidance given in Guidelines for JI projects. Required for ERUPT.
Covered Gases	All six Kyoto gases.
Project Approval	
General Project Approval Considerations	Guidelines for JI/CDM projects must be followed. JI/CDM eligibility requirements apply both in Netherlands and host country.
Baselines, Quantification, and Monitoring	
Baseline Scenario	NA
Additionality	NA
Quantification Requirements	Guidelines for JI/CDM projects followed.
Monitoring Requirements	During the commitment period the real reduction of GHG must be established, i.e. the real number of ERUs generated by ERUPT projects and CERs generated by CERUPT projects. (This should be done by executing monitoring studies.) Contractors must submit five monitoring studies
Baseline Adjustment	Explained in Guidelines.
Reporting/ Registration Process	
Reporting/Submission Process	Annual reporting on monitored GHG emission reductions at each JI or CDM project, and in accordance with JI or CDM procedures, as applicable.
Review by Implementing Organization	Yes. Senter verifies all reports.
Record Keeping Requirements	N o information.

SET 4	International (cont.)
Issues	Netherlands ERUPT/CERUPT
Project Monitoring	See Appendix 3.
Validation/Verification/Certification/ Accreditation	
Overall Process	Validation and verification are implemented in accordance with applicable UNFCCC guidelines and modalities.
Validation Requirements/Process	Validation and verification by third parties are required.
Verification Requirements/Process	Validation and verification by third parties are required.
Certification Requirements/Process	Specified in guidelines (volumes 3A and 3B).
Validator/Verifier Qualifications	Validation/verification bodies must be officially recognized by the Dutch Government as competent to carry out the validation/verification.
Uncertainty	Addressed through validation and verification.
Quality Assurance	No information.
Assignment of Credits	Under the ERUPT/CERUPT Programs, a carbon credit is defined as reductions of emissions of GHGs caused by a project or investment equivalent to 1 ton CO ₂ e. JI GHG credits are officially called Emission Reduction Units (ERUs) and CDM GHG credits are called Certified Emission Reductions (CERs).
Trading Program / System	
Title	Netherlands ERUPT/CERUPT
Short Description	The Netherlands ERUPT/CERUPT programs provide a mechanism for determining ERUs (for JI projects) and CERs (for CDM projects) that will form the basis for credit trading.
Trading Experience	
Years of Trading to date	2
Number of Trades to date	Under ERUPT 2, Senter purchased US\$30 million in ERUs.
Average Trades per year (anticipated)	Not known.

SET 4	
Issues	International (cont.) Netherlands ERUPT/CERUPT
Trading Elements	
Gases Traded	The Kyoto six.
Types of Trades	Not specified.
Sectors Traded	All sectors.
Compliance with Trading Rules	NA
Credit Allocation	
Assignment of Credits (if different than above)	Credits are verified and purchased by Senter per guidelines available on web.
Credit for Past Reductions (if different than above)	Only for CDM projects under CERUPT.
Trading System	
Design of Trading System In general	NA
Transfer Tracking System	NA

Energy Policy Act of 1992

Section 1605.

NATIONAL INVENTORY AND VOLUNTARY REPORTING OF GREENHOUSE GASES

(a) NATIONAL INVENTORY.- Not later than 18 months after the date of the enactment of this Act, the Secretary, through the Energy Information Administration, shall develop, based on data available to, and obtained by, the Energy Information Administration, an inventory of the national aggregate emissions of each greenhouse gas for each calendar year of the baseline period of 1987 through 1990. The Administrator of the Energy Information Administration shall annually update and analyze such inventory using available data. This subsection does not provide any new data collection authority.

(b) VOLUNTARY REPORTING.-

(1) ISSUANCE OF GUIDELINES.-Not later than 18 months after the date of the enactment of this Act, the Secretary shall, after opportunity for public comment, issue guidelines for the voluntary collection and reporting of information on sources of greenhouse gases. Such guidelines shall establish procedures for the accurate voluntary reporting of information on-

(A) greenhouse gas emissions-

- (i) for the baseline period of 1987 through 1990; and
- (ii) for subsequent calendar years on an annual basis;

(B) annual reductions of greenhouse gas emissions and carbon fixation achieved through any measures, including fuel switching, forest management practices, tree planting, use of renewable energy, manufacture or use of vehicles with reduced greenhouse gas emissions, appliance efficiency, methane recovery, cogeneration, chlorofluorocarbon capture and replacement, and power plant heat rate improvement;

(C) reductions in greenhouse gas emissions achieved as a result of-

- (i) voluntary reductions;
- (ii) plant or facility closings; and
- (iii) State or Federal requirements; and

(D) an aggregate calculation of greenhouse gas emissions by each reporting entity. Such guidelines shall also establish procedures for taking into account the differential radiative activity and atmospheric lifetimes of each greenhouse gas.

(2) REPORTING PROCEDURES.-The Administrator of the Energy Information Administration shall develop forms for voluntary reporting under the guidelines established under paragraph (1), and shall make such forms available to entities wishing to report such

information. Persons reporting under this subsection shall certify the accuracy of the information reported.

(3) CONFIDENTIALITY.-Trade secret and commercial or financial information that is privileged or confidential shall be protected as provided in section 552 (b)(4) of title 5, United States Code.

(4) ESTABLISHMENT OF DATA BASE.-Not later than 18 months after the date of the enactment of this Act, the Secretary through the Administrator of the Energy Information Administration shall establish a data base comprised of information voluntarily reported under this subsection. Such information may be used by the reporting entity to demonstrate achieved reductions of greenhouse gases.

(c) CONSULTATION.-In carrying out this section, the Secretary shall consult, as appropriate, with the Administrator of the Environmental Protection Agency.



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Some more research pertaining
to voluntary programs is
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Toward a theoretical model of voluntary overcompliance

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Abstract

We explain why some firms voluntarily overcomply with environmental regulations. In our model all consumers value environmental quality but differ in their willingness to pay which depends on their income levels. Publicly available information on environmental performance of firms enables consumers to identify clean firms. Firms participate in a two-stage costly game where they first choose their levels of cleaning technology and next engage in price competition. The market gets segmented by income levels. A minimum standard leading on the dirty firm has the effect of improving the performance of the cleaner firm. A subsidy obtains the same competitive outcome.

JEL classification: Q28

Keywords: Voluntary overcompliance; Voluntary environmental regulation

1. Introduction

The conventional wisdom in the environmental literature goes as follows: 'If the law says that the firm can emit up to 500 tons of *gloop* per year, it has no reason to spend a penny to reduce its discharges to 499 tons' (Blinder, 1987). According to this logic, in a regime of minimum standards each firm does the minimal level

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future regulations. This may especially be true for bulky investments. While in the short run, this may appear as over complying with regulation, it might result in substantial cost savings in the long-run.

To the extent that firms can influence the formation of regulation, overcomplying of standards by some firms could serve as a signal to the lawmakers to tighten up regulations for industry as a whole. Salyap and Scheffman (1983) have identified how a firm may want tighter restrictions if they raise the costs of its rivals. However, casual, empirical observations suggests that standards do not get tightened up as frequently as one might expect. The EPA is often criticized for lacking in technology as the Best available control technology (BACT) standard, leaving no incentive to innovate. It might be in the interest of industries as a whole to lobby for stricter controls and more stringent regulations as long as such regulations restrict entry (see Maloney and McCormick, 1982). However, these theories are unable to explain the surge in corporate consciousness over the past few years.

Firms may overcomply to gain reputation as an environmentally friendly company. However, a major driving force behind reputational models is imperfect information; either across product types or in the same product over time. It is the uncertainty of product quality that encourages consumers to look at reputational signals. However, increasingly, information about pollution levels is becoming public.

Public disclosure of toxic pollution is mandated under the Emergency Planning and Community Right to Know Act (EPCRA). The US Congress passed the law in 1986 in response to an environmental tragedy involving toxic chemicals in Bhopal, India. The EPCRA required all manufacturing establishments to annually report their releases and transfers of over 320 toxic chemicals. This has resulted in the creation of the Toxics Release Inventory. Firms with bad environmental records on the TRI have called voluntarily in pollution prevention programs and made vociferous environmental pledges to redress their image.¹ Firms are increasingly ranked by their environmental performance (Rice, 1993). The environmental literature has attempted to construct a green index to measure performance (Tyteca, 1993). Public disclosure of pollution levels can generate public pressure to reduce pollution levels (Arora, 1993).

Regulations like the EPCRA have equipped the consumers with information to exercise their preferences for environmentally safe products in the marketplace. This is especially so in a framework where consumers value environmental quality and are willing to pay a higher price for a cleaner product. In the coming section we provide support for these assumptions from survey evidence. A key message of the paper is that market forces are important if information on the environmental records of firms is publicly available.

¹ Soon after the release of the TRI data in 1987, the CEO of Monsanto made a voluntary pledge to reduce releases and transfers of over 320 chemicals by 90 percent.

This paper models the preferences for environmental quality and demonstrates that with publicly available information, minimum environmental standards would always be overcome. We employ a full information model. We compare clean-up under alternative regulatory regimes, namely taxes and tradable permits. An indirect instrument such as a tax on output decreases the level of clean-up by hurting their ability to compete.

Section 2 describes the setting of our model and lays out the key assumptions. Section 3 presents the formal model and Section 4 studies the effect of governmental minimum standards on firms' choice of cleaning technologies. This section also compares taxes with standards. Section 4 briefly incorporates a discussion of permits and Section 5 concludes the paper. The appendix contains the proofs.

2. Assumptions

The consumer movement for a better environment has already led to laws that levy punishments or taxes on certain firms. However, an equally, if not more, important issue is the consumer's own preference for firms that have cleaner environmental records. For example, consumer groups routinely call for the boycott of companies that violate accepted practices for a clean environment.² We postulate that, controlling for price and quality, consumers prefer to buy from a company with a better environmental record. The motivation for making this assumption is provided by Arora and Curran's (1995) analysis of participation in a voluntary pollution prevention initiative of the EPA. Their analysis suggests that industries which produce for local demand and hence are closest to the consumers are most likely to participate in a voluntary program. This suggests that firms perceive that consumers care about a clean product. Increasingly firms are trying to develop cleaner technologies. We assume that for the same physical quality, a consumer may be willing to pay a higher price if the product is produced with a technology that is environmentally better. Evidence of environmental consciousness exists in US and Britain and other western countries. Polls have indicated a willingness to pay a higher price for a cleaner product.³ Firms seem to be aware

² Consumer groups demanded a shut down of Union Carbide in India, after the Bhopal tragedy in 1984.

³ According to a poll by MORI, between November 1988 and May 1989 the proportion of respondents who bought a product because of environmental friendliness soared from 19 percent to 42 percent. A survey by a British product-development consultancy in 1989 revealed that 53 percent of people questioned had declined to buy a product because they were worried about the effects of the product or its packaging on the environment. 75 percent of the people surveyed were willing to buy a product which was degradable and had recyclable packaging and roughly as much were willing to pay a premium for such products. Morgan, revealed in 1989 that some shoppers in Britain were willing to pay a 25 percent premium for organically grown food and environmentally friendly products (Cairncross, 1992).

of the growth in size of the environmentally conscious consumer group; increasingly, businesses are trying to project an image of being 'environmentally responsible.' This has led to some 'internalization' of the diseconomies of environmental pollution.

The major driving force of our model is the *effortability* of a cleaner environment. Consumers with different incomes have different abilities to pay for cleaner products. Consumers differ in their marginal utilities of income. The same dollar price has a greater 'willingness' to a poorer consumer than a richer consumer. The market gets segmented by income levels. The sociological literature views markets as social structures that are differentiated by product quality. According to White (1993), increasing returns to scale in network economies result in market niches and hence in segmentation of the market. In our model, increasing returns to scale are not necessary for segmentation. However, the availability of information about the production technology is crucial for consumers to exercise preferences for clean firms. More and more of such information is becoming available to the consumers.⁴

3. The model

There is a (physically) homogeneous product, x , produced at zero cost. Production of this output also generates a pollutant at the level $\bar{e} > 0$. An end-of-the-pipe cleaning technology can reduce emissions or render them less harmful. If e measures the degree of cleaning, then the net level of emission is $(\bar{e} - e)$. Higher e , or lower emissions, implies a better cleaning process and, hence, greater cost. Let $C(\bar{e} - e) = c(e)$ denote the cost of cleaning. We assume a fixed cost of clean-up.⁵

$$(A.1): c'(e) > 0, c''(e) > 0, c(0) = 0, \text{ and } c'(\cdot) \rightarrow 0 \text{ as } e \rightarrow 0.$$

In a chemical plant, for example, the efficiency of the purification process for chemical waste would depend on the amount spent by the firm for such cleaning activity. There are two firms, each of which chooses (i) the level of clean-up e and, hence, the level of emission, and (ii) P , the price for its product.

⁴ One may argue that information about emission control may not be perfect since seldom do consumers (completely) observe the actual production process. This will, of course, give rise to products of uncertain quality. If a firm produces two types of products, one where the pollution control levels are observable and the other where it is inoperable or, overcomplicated in the observed process will be a signal of the firm's overall commitment to a clean environment. In the product where there is full information, overconfidence will be guided by our hypothesis.

⁵ Choice of emission technology requires investment; it is not purely a variable cost. It is not possible, for example, to switch the same levels of emission control in petrol driven and electricity powered vehicles. However, while petrol driven cars, lawnmowers in the suburbs of the engine will determine the cost effectiveness of the marginal reduction in emissions.

We assume that the individual derives utility from the cleaning activity done by the firm. The products are homogeneous in all other respects but differ, in the way that they are produced, i.e. in the level of clean-up employed by each firm. For simplification, we assume that the consumers do not derive any intrinsic utility from the product, but rather from the cleaning activity of the firm.

A consumer's utility depends on the consumption of a composite commodity, called money, denoted by y and the cleaning technology of the firm from which she buys good x . Consumers enjoy utility in buying from a firm that takes active measures to reduce pollution. Consumers have identical preferences but different levels of income. A consumer's utility function, U , has the following representation:

$$U(y, \theta, \epsilon) = y + \epsilon \frac{p}{\theta(\gamma)} \tag{3.1}$$

where p is the price of the good, ϵ is the level of cleaning activity of the firm from which she buys x , and $\frac{p}{\theta(\gamma)}$ is the marginal utility of money.

From our description of the utility function, maximizing utility is the same as maximizing the surplus generated from buying a unit of x , given by $\epsilon - K(\gamma)$. Consider a consumer buying a unit of x from a firm which has a cleaning level ϵ and charges a price p . Her gain in utility is given by ϵ ; the loss of utility is p times the marginal utility of income $\frac{1}{\theta(\gamma)}$.

Thus, her net gain in utility is $\epsilon - \frac{p}{\theta(\gamma)}$. Note that p can be positive only if $\epsilon > 0$. As income level falls, the valuation of p rises, since the marginal utility of income is inversely related to income.⁶ We assume that y is distributed uniformly with support $[\underline{y}, \bar{y}]$; this implies that θ is uniformly distributed with support $[\underline{\theta}, \bar{\theta}]$ where $\bar{\theta} = \theta(\underline{y})$ and $\underline{\theta} = \theta(\bar{y})$.

This formulation of the utility function is similar to that developed in Mussa and Rosen (1978) and Itoh (1983), for a differentiated good with quality.⁷ In their papers, each consumer purchases just one unit of the good if she purchases it at all.⁸ Furthermore, the marginal utility of money is constant at unity for all individuals, but the marginal utility from quality is different for different individuals. For the same quality and same price, this leads to different valuations of the net surplus for different individuals. In our paper the surplus from a given ϵ and p , differs among individuals because the marginal utility of money differs while

⁶ Such an interpretation is also available in Thiele (1994).

⁷ Firm i 's joint maximization may more generally be represented as $p'D(x, \epsilon) - c'(D(x, \epsilon), \epsilon)$ where $D(x, \epsilon)$ is the quantity sold by firm i and c' is cost incurred by firm i if it sells q' units of output and cleans by ϵ' units. However, the particular functional form in our model allows us an easier analysis of the surplus and also captures the income effects nicely.

⁸ While, this assumption may be relaxed, it would introduce a quantity-quality trade-off by each consumer, which will distract attention from our focus on the price-quality trade-off. We would obtain the same qualitative results.

the marginal utility from an extra unit of cleaning is the same. In other words, even though everyone has the same preferences, consumers behave differently because of income differences.³ Thus even though everyone prefers a cleaner environment the total clean up may be determined by affordability, where affordability is measured as the amount of money a person is willing to give up for a unit of cleaning by a firm. Everyone cannot have a 'Cadillac environment' if they do not pay for it (Blinder, 1987).

The total population of consumers is normalized to unity. Thus the market share of each firm is the proportion of people buying from that firm. We will index each consumer by her theta. Let $S_i(\theta)$ be the surplus generated to a consumer with marginal utility of income equal to theta when it buys from firm i , $i = 1, 2$. Let θ_i be the set of consumers buying from firm i . Without loss of generality, we will assume that $e_1 \geq e_2$.

$$S_i(\theta) = e_i - \frac{P_i}{\theta}, \quad i = 1, 2 \tag{3.2}$$

$$\theta_2 = \{\theta / S_2 > S_1, \text{ and } S_2 \geq 0\} \tag{3.3}$$

$$\theta_1 = \{\theta / S_1 \geq S_2, \text{ and } S_1 \geq 0\}. \tag{3.4}$$

The market share of firm i , α_i , is given by

$$\alpha_i = \int_{\theta_i} dF(\theta), \tag{3.5}$$

where $F(\theta)$ is the distribution function of θ .
 Fig. 1 plots a three-dimensional graph, with the axes representing surplus functions which are derived from the consumption of the products, consumer types and the income levels of these different consumer types. The surplus functions are predicated on a given P_1 and e_1 . The set θ_2 is the interval $[\theta_2, \theta_1]$ and θ_1 is $[\theta_1, \infty)$. The figure is drawn for the case where $e_1 > e_2$ and $P_1 > P_2$. For all theta below θ_2 the surplus from consuming from either firm is negative. For all consumers in the range θ_2 to θ_1 , the net surplus is greater from firm 2. Between θ_1 and the upper bound everyone consumes the product of the cleaner firm. The market gets segmented by consumer types and the point at which the switch occurs is θ_1 . $1/\theta(y)$ denotes the marginal utility of money. Fig. 1, plots the relation between θ and y as a monotonically non-decreasing relation. Each theta corresponds to a unique income level. This market is segmented according to the consumers' willingness to pay for the better technology. Note that $\theta_{p,j} = 1, 2$, are functions of P_j and e_j . The value of θ_1 is obtained from setting $e_2 - \frac{P_2}{\theta} = 0$; θ_1 is

³ In Masera and Rosen, or Nash, if consumers have the same preference, they will buy the same quality.

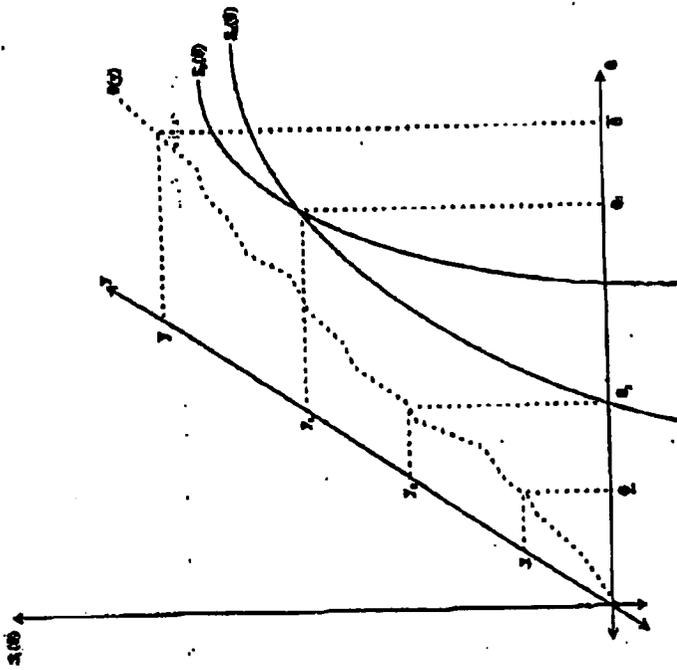


Fig. 1. Segmentation of market by consumer types and income levels.

solved from setting $\theta_1 = \theta_2 = \theta_3 = \theta^*$. In the appendix we prove that this is the only case to consider.

$$\theta_2 = \frac{P_2}{\epsilon_2} \tag{3.6}$$

$$\theta_1 = \frac{P_1 - P_2}{\epsilon_1 - \epsilon_2} \tag{3.7}$$

Firms play a two stage game. In the first stage, each firm decides the emission control technology, ϵ , i.e., the level of cleaning up it will do. In the second stage, firms compete in prices. In each stage, a firm chooses its own choice variables namely, ϵ and P , treating the other firm's choices as given. A standard way to

solve dynamic programming models involves solving the second stage first. The price game is predicated on a given choice of technologies. This ensures that our solution is sub-game perfect.

3.1. The price game¹⁰

Let π_i be the profit of firm i in the second stage, i.e., for given choices of e_1 and e_2 . Then,¹¹

$$\pi_1 = P_1 \int_{\theta_1}^{\theta} dF(\theta) \tag{3.8}$$

$$\pi_2 = P_2 \int_{\theta_2}^{\theta} dF(\theta). \tag{3.9}$$

Define $R = (\theta - \theta_1 - \theta_2)$. Since there is uniform distribution over $[\theta_1, \theta]$, from (3.8), (3.9) and (3.9),

$$\pi_1 = \frac{P_1}{R(e_1 - e_2)} [\theta(e_1 - e_2) - P_1 + P_2] \tag{3.10}$$

$$\pi_2 = \frac{P_2(P_1 e_2 - P_2 e_1)}{R(e_1 - e_2) e_2}. \tag{3.11}$$

Differentiating the profit functions (3.10) and (3.11) with respect to P_1 and P_2 respectively, and setting them equal to zero, we get

$$\frac{d\pi_1}{dP_1} = 0 \tag{3.12}$$

$$\frac{d\pi_2}{dP_2} = 0. \tag{3.13}$$

¹⁰ Throughout the rest of the paper we will have $e_1 > e_2$. The Appendix formally proves that firms will always choose different levels of cleanup.

¹¹ A fixed cost is incurred in the installation of a particular kind of technology. Once that choice is made, production of each unit of the good is constant. However, if we are to explicitly consider a positive variable cost it would merely change the expressions to $\pi_1 = (P_1 - e_1) \int_{\theta_1}^{\theta} dF(\theta)$ and similarly $\pi_2 = (P_2 - e_2) \int_{\theta_2}^{\theta} dF(\theta)$ where e_i is a constant, but positive, average variable cost of production. Furthermore, e_i may be the result of two types of costs, e_i , which is the marginal cost of production and e_i , which is the cost of cleaning each additional unit. These costs need not be the same for both firms. In our model, firms are identical to begin with, but choose to produce at different levels of quality.

Solving (3.12) and (3.13), the equilibrium prices in the second stage, given the emission technology, are¹²

$$P_1 = \frac{2\bar{\theta}(e_1 - e_2)e_1}{(4e_1 - e_2)} \quad (3.14)$$

$$P_2 = \frac{\bar{\theta}(e_1 - e_2)e_2}{(4e_1 - e_2)}, \quad (3.15)$$

where $P_1 > P_2$.

3.2. Choice of emission technology

This is the first stage of the game and here firms choose the emission technology. Using (3.14) and (3.15), one can write the first stage profits for each firm wholly in terms of e_1 and e_2 . Let this profit be denoted Π_i . Then,

$$\Pi_i = P_i e_i - c(e_i), \quad i=1,2. \quad (3.16)$$

An equilibrium choice of emission technologies (e_1^*, e_2^*) is such that

$$\Pi_1(e_1^*, e_2^*) \geq \Pi_1(e, e_2^*) \quad \forall e \in [0, \bar{e}] \quad (3.17)$$

$$\Pi_2(e_1^*, e_2^*) \geq \Pi_2(e_1^*, e_2) \quad \forall e_2 \in [0, \bar{e}]. \quad (3.18)$$

Using (3.14), (3.15) and (3.16), the profit equations are

$$\Pi_1(e_1, e_2) = \frac{\bar{\theta}^2 4e_1^2 (e_1 - e_2)}{R(4e_1 - e_2)^2} - c(e_1) \quad (3.19)$$

$$\Pi_2(e_1, e_2) = \frac{\bar{\theta}^2 e_1 e_2 (e_1 - e_2)}{R(4e_1 - e_2)^2} - c(e_2). \quad (3.20)$$

For a solution we set

$$\frac{d\Pi_1(e_1, e_2)}{de_1} = 0 \quad (3.21)$$

$$\frac{d\Pi_2(e_1, e_2)}{de_2} = 0 \quad (3.22)$$

¹² With a variable cost equal to a_2 , we get the following expressions for prices:

$$P_1 = \frac{2\bar{\theta}(e_1 - e_2)e_1 + 3e_1 a_2}{(4e_1 - e_2)} \quad \text{and}$$

$$P_2 = \frac{\bar{\theta}(e_1 - e_2)e_2}{(4e_1 - e_2)} + \frac{a_2(2e_1 + e_2)}{(4e_1 - e_2)}.$$

The algebra becomes increasingly cumbersome and hence our analysis will continue to assume that there are zero variable costs. This does not compromise our analysis of firms.

which imply the following first order conditions:¹³

$$\frac{\partial^2}{\partial} \frac{16e_1^2 - 12e_1^2e_2 + 8e_1e_2^2}{R(4e_1 - e_2)^2} - c'(e_1) = 0 \quad (3.23)$$

$$\frac{\partial^2}{\partial} \frac{4e_1^2 - 7e_1^2e_2}{R(4e_1 - e_2)^2} - c'(e_2) = 0. \quad (3.24)$$

Totally differentiating (3.23) and (3.24), we get

$$\begin{bmatrix} -\frac{\partial^2}{\partial} \frac{e_1^2(2e_1 + e_2)}{R(4e_1 - e_2)^2} - c'(e_1) & \frac{\partial^2}{\partial} \frac{8e_1e_2(5e_2 + e_1)}{R(4e_1 - e_2)^2} \\ \frac{\partial^2}{\partial} \frac{2e_1e_2(8e_1 + 7e_2)}{R(4e_1 - e_2)^2} - c'(e_2) & \frac{\partial^2}{\partial} \frac{8e_1e_2(5e_2 + e_1)}{R(4e_1 - e_2)^2} \end{bmatrix} \begin{bmatrix} de_1 \\ de_2 \end{bmatrix} = 0. \quad (3.25)$$

The reaction function of each firm is given in Fig. 2. Reaction function of firm 1, is the response of firm 1, to different levels of clean-up technology employed by the second firm. Similarly, reaction function of firm 2 is the response of firm 2 to the levels of cleaning technology employed by firm 1. For all points on the 45° line, $e_1 = e_2$. Note that in the diagram, the intersection of the two reaction functions occurs below the 45° line to illustrate the point that in equilibrium firm 2 has a lower cleaning effort than firm 1. Since in the second stage the firms compete in prices, if the emission levels are the same, competition will ensure that both prices are zero. For any positive level of cleaning effort, this will mean negative profits in the overall game. Thus identical cleaning technology is never an optimum. Therefore, firms differentiate themselves; they cater to different sets of customers, as shown in Fig. 1 (see the appendix for a formal proof). From (3.25) it is easy to see that the slope of the response curve of firm 1 $\frac{de_1}{de_2}$ is steeper than that of firm 2 $\frac{de_2}{de_1}$ and that both are positively sloped.

Market positioning in this paper is the result of product positioning in a market with non-homogeneous consumers. The heterogeneity in consumer purchases is the result of the income distribution. Product positioning is achieved by choosing the emission technology. This gives rise to a product with different 'qualities'. It is not necessary to have increasing returns to scale to generate this outcome. Even without it, so two firms would choose the same level of pollution control as long as there is some positive cost of production and/or of pollution control. This is the result of the price competition with non-homogeneous consumers.

As important aspect of the model developed so far is the sensitivity of the

¹³ If whenever the derivatives follow standard procedures, we skip the algebraic steps, these are available from the author.

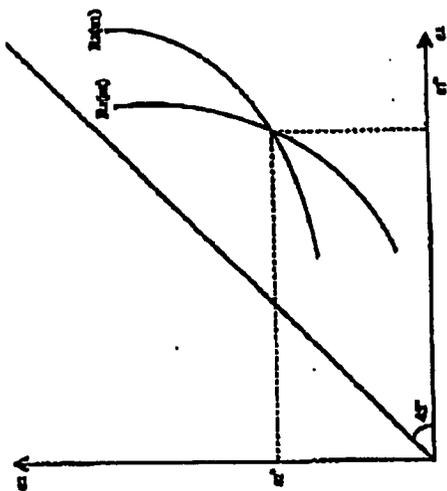


Fig. 2. Reaction functions in duopoly.

cleaning effort by firms, to the distribution of income. This, in turn, is determined by the distribution of costs. If the distribution of costs shifts out, i.e., every firm is replaced by $\theta + \epsilon$, $\epsilon > 0$, then the emission levels of both firms will improve. This is immediate if in the right-hand-side of (3.25) we allow for changes in the parameters θ and δ . The intuition for this result is simple. Consider a given ϵ_1 and ϵ_2 . If every individual's income increases, then for the same prices as before, the surplus enjoyed by a consumer is falling with income. This also implies that consumers are willing to pay a higher price for additional consumer, the increase in cost. Prior to the income change, for the marginal consumer, the increase in cost of additional cleaning was greater than the net increase in the utility of a cleaner product. Now, with a lowering of the utility cost, the firms can charge slightly higher prices to cover additional costs without losing their erstwhile customers. Competition among firms now guarantees the result. Moreover, if the number of people with lower income decreases, then also, the emission levels of both firms improve. Such a result may be used to explain why the environmental records of firms are worse in developing countries compared to those in developed ones.

Proposition 1. The emission levels of both firms improve if (i) the income of each group increases by the same amount, or, (ii) the lowest income group increases its income (i.e., θ increases).

4. Government policy: standards and taxes on output

In this section we will study what effects government policies have in situations where consumers derive utility from consuming environmentally cleaner products. Specifically, we consider the imposition, by the government of a minimum standard of cleaning for each firm. Later, we argue that the same outcome can be obtained by subsidies to firms.

4.1. Minimum standard

Let the government impose a minimum standard, which specifies that the clean-up level by each firm must be at least as large as δ . For this restriction to be effective, δ must be greater than e_2^* . Fig. 3 plots the reaction functions with an effective minimum standard. With $\delta > e_2^*$, firm 2 is forced to increase its clean-up effort; this increases e_1 and, given the positively sloped reaction curve of 1, it induces firm 1 to increase its cleaning activity to further differentiate itself from firm 2. Notice that if δ is too high, then both firms may not be able to make positive profits. This is because the maximum that is restricted to δ , with stricter and stricter standards, the firms are forced to operate on lower and lower market sizes at higher and higher costs. Thus,

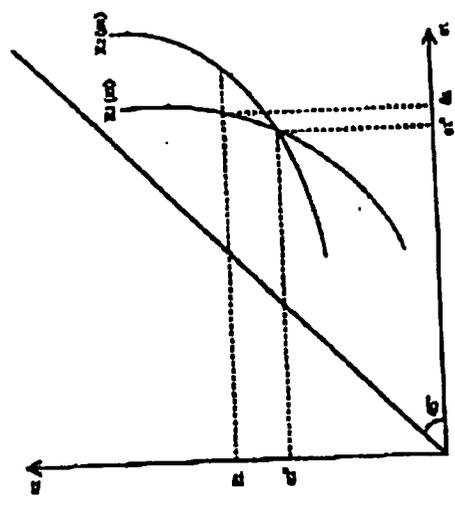


Fig. 3. Effect of minimum standard on clean-up levels.

Proposition 2. If the government imposes an effective minimum standard which is not too high, i.e., both firms operate, then the worse firm will meet the standard exactly while the better firm will overmeet the standard.

It is interesting to see what happens to the total market served by the two firms. This is important because much of the argument against government regulations is that they increase the cost of the product and therefore, are similar to a regressive policy which pushes out the poorer buyers from the market. The fraction of people buying this good is given by $1 - F(\hat{e}_2)$ where $F(\cdot)$ is the distribution of theta. This is because all consumers with theta at least as large as θ_2 will buy the product. We will denote the equilibrium variables for clean-up by firm i by \hat{e}_i , and its price by \hat{p}_i . Similarly price for firm 1 is denoted by \hat{p}_1 . From the price Eq. 3.15,

$$\theta_2 = \frac{\hat{p}_2}{e_2} = \frac{\hat{p}(e_1 - e_2)}{4e_1 - e_2} \tag{4.1}$$

Using (3.23) and (3.24) to do comparative statics, one can show that for all $\hat{e}_2 > e_2^*$, and when both firms operate,

$$\frac{d\hat{p}_2}{d\hat{e}_2} = -1 \tag{4.2}$$

$$\frac{d\hat{e}_2}{d\hat{e}_1} = \frac{A\delta e_1 e_2}{A\delta e_2^2 + c'(e_1)} \tag{4.3}$$

where

$$A = \frac{\hat{p}^2}{R} \frac{8e_1 + e_2}{(4e_1 - e_2)^2}$$

Since the standard is always binding for firm 2, (4.2) is immediate. From (4.1), using (4.2) and (4.3), for \hat{e}_2 to be nondecreasing with \hat{e}_1 , it is necessary that

$$\frac{d\hat{e}_2}{d\hat{e}_1} \geq \frac{e_1}{e_2} = -\frac{e_1}{\hat{e}_2} \tag{4.4}$$

From (4.2) and (4.3), this is never possible as long as $c''(\cdot) > 0$ at all positive clean-up levels. Notice that since $\frac{d\hat{p}_2}{d\hat{e}_2} = -1$, $\frac{d\hat{p}_2}{d\hat{e}_1}$ is the same as $\frac{d\hat{e}_2}{d\hat{e}_1}$. This last expression is the response of firm 1 to a change in the clean-up level of firm 2. Indeed, it is the slope of firm 1's response function in Fig. 2. Thus (4.4) says that the market size depends on the elasticity of the response function of firm 1. (4.2) and (4.3) show that this elasticity is always less than unity. Thus:

Proposition 3. *With the imposition of a government standard, the proportion of buyers actually buying the product increases.*

The above proposition is a counter-intuitive result and therefore, interesting. One may ask, how can a larger proportion of consumers buy the product when its cost and price have gone up. Consider the situation in the absence of a standard. Then, $e_2 = e_1^* < e_1^*$. Profit maximization encourages firms to be separated from each other. Recall that $\theta_2 = \frac{2}{3}$. Thus as e_1 increases π_1 falls unless P_1 rises by as much as, or more than, e_1 . Now if an effective standard $e_1 \geq \beta > e_1^*$ is imposed, then firm 2, just meets the standard. When this standard is made tighter, compliance cost of firm 2 increases. Some of this increased cost is, indeed, passed on to the consumers. Thus π_2 falls increasing the affordability of this product. In this model, affordability is measured by the nonnegativity of consumer surplus derived from the commodity. Thus surplus can be increased by cleaner products; consequently, cleaner products can be afforded at higher prices.

4.2. Tax/subsidy on output

Consider the effect of taxes on the output. Let t be the ad valorem tax on firm 2 and τ be the tax on firm 1. The profits in the second stage, or the price game, will be

$$\pi_2(t, \tau) = (1 - t) P_2 \alpha_2 \tag{4.5}$$

$$\pi_1(t, \tau) = (1 - \tau) P_1 \alpha_1 \tag{4.6}$$

It is immediate that the prices P_1 and P_2 are the same functions of e_1 and e_2 as in (3.14) and (3.15). Consequently, we can concentrate on the first stage game alone. Thus:

$$\Pi_1(e_1, e_2) = (1 - \tau) \frac{\partial^2}{\partial e_1^2} \frac{4e_1^2(e_1 - e_2)}{R(e_1 - e_2)^2} - c(e_1) \tag{4.7}$$

$$\Pi_2(e_1, e_2) = (1 - t) \frac{\partial^2}{\partial e_2^2} \frac{e_1 e_2 (e_1 - e_2)}{R(e_1 - e_2)^2} - c(e_2). \tag{4.8}$$

Let $e_2^*(t)$ and $e_1^*(\tau)$ be the equilibrium outcomes. We show in the appendix that

$$\frac{d}{ds} e_j(t, \tau) < 0, \quad j = 1, 2 \text{ and } i = 1, 2. \tag{4.9}$$

Thus any amount of positive taxes reduce the clean-up effort by firms. To generate the same outcome as a standard, one has to subsidize the firms(s). Solving for $\theta_2(t, \tau)$ is a fashion similar to what we did in the previous section it is easy to show that $\theta_2(t, \tau)$ will fall with negative taxes or, subsidies. With a subsidy, it is possible for firm 2 to increase its clean-up effort, take away the poorest customers

of firm 1 who will now shift to firm 2 at the same price; since 2 can affect this at the same price, it does not lose its own poorer customers. Firm 1, therefore, has to retaliate by giving its own customers a better deal. The net result of this is an improvement in the price-clean-up pair for the consumers. A positive tax, on the other hand, reduces the ability of the taxed firm to compete. Since the clean-up effort was a competitive outcome given different consumers, any increase in competitiveness will increase clean-up efforts; the subsidy, therefore, has a better effect than taxes.

The tax has two opposing effects on the level of emissions. While the imposition of a tax causes a reduction in output, this does not necessarily translate in reduced emissions. Each unit of output is much more polluting and as a result clean-up may decrease with the imposition of a tax on output.

Proposition 4. Any taxation of the environmentally hazardous product reduces the level of clean-up by firms. Subsidizing firm(s) increase the clean-up of each firm as well as the total number of consumers served.

4.3. Tradable emission permits

In the conventional literature, a system of marketable permits ensures a given level of clean-up at least cost. The flexibility of a permit trading regime allows firms with different abatement costs to meet environmental goals at least cost to society. Permit trades take place between high cost and low cost firms till the marginal costs of abatement are equalized and are equal to the price of the permit. The theoretical efficiency condition requires equalization of marginal costs of clean up across firms (see Tietenberg, 1985). Recently, Hahn and Stavins (1992) have pointed out that in practice, there are substantial transactions costs which reduce the efficiency of trades.

In our framework, the efficiency condition changes even under theoretical conditions since consumers value environmental quality. The establishment of a well organized market for permit trades further enables easy identification of clean and dirty firms. A net seller of permits reinforces her clean image and consequently gains market share. As a result there are much fewer trades than predicted by the marginal cost equalization rule. We can see that for any positive levels of clean-up, the efficiency condition of equalization of marginal costs, is always violated.

Proposition 5. The efficiency condition for trades of permits will depend also on the marginal benefit of being a clean firm. There will be much fewer trades than predicted by marginal cost equalization rule.

5. Conclusion

This paper has developed a simple model to rationalize two empirically observed phenomena: (i) the growing tendency of firms to develop an image of being environmentally conscious, and (ii) the recent voluntary overmeeting of environmental standards. Our model argues that these are natural outcomes in situations where consumers have developed an awareness, strong enough to affect their buying habits, from environmentally 'bad' producers. This behavior has been facilitated by the regulatory framework with public reporting of emissions. The paper therefore explains, theoretically, what in the conventional literature was an empirical conundrum.

One striking result is that mandatory public reporting of releases changes the established equilibrium between different regulatory regimes of standards, taxes and penalties. Public images of a company is key. This image results from actual reporting of releases and from advertising by the firm. In this context it would be pertinent to investigate how truthful reporting may be assured at minimal enforcement cost. In the same vein, there should be controls on eco-labelling, which has sprung in the past few years.

The model also holds in the issue of affordability of a cleaner environment. It explains why there is less environmental abuse by firms in developed countries as opposed to their counterparts in less developed countries. Higher income levels in developed countries have increased demands for environmental quality and have forced companies to address environmental concerns more seriously. Extensions of this paper might look at different distributions of income levels to see the impact of increased equality of incomes on the total clean-up.

6. For further reading

Gabzevitz and Thiese (1979), Portney (1990), and Russell et al. (1986).

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Appendix A

Let the two firms be 1 and 2. In the second stage of the game these firms choose prices, given the emission technologies chosen in the previous stage. For ease in exposition, we will index consumer type by theta.

Define

$$\theta_1 = \max\left\{\theta, \min\left\{\frac{P_2}{e_2}, \bar{\theta}\right\}\right\} \tag{6.1}$$

$$\theta_2 = \min\left\{\bar{\theta}, \max\left\{\frac{P_1 - P_2}{e_1 - e_2}, \theta\right\}\right\} \tag{6.2}$$

Lemma 1: Let $e_1 \geq e_2$.

1. If P_1 and e_1 are such that a consumer of type θ' buys a unit of x , then so will all types $\theta \geq \theta'$
2. If $\theta \leq \theta_1 < \bar{\theta}$, then $e_1 > 0$ for $i=1,2$, $\theta_1 = (\theta / \theta) \geq \theta_2$ and $\theta_2 = (\theta / \theta_2) \leq \theta < \bar{\theta}$.
3. If $e_1 > e_2$, then for $\theta_2 > \theta_1 > P_2$.

Proof:

(i) Consider $\theta \geq \theta'$. By definition of type θ' ,

$$e_1 - \frac{P_1}{\theta} \geq e_1 - \frac{P_1}{\theta'} \tag{6.3}$$

(ii) For $\theta \geq \theta_1$, with $\theta \leq \theta_2 < \theta_1 < \bar{\theta}$, from (6.2) we get

$$\theta \geq \frac{P_1 - P_2}{e_1 - e_2} \tag{6.4}$$

$$e_1 - \frac{P_1}{\theta} \geq e_2 - \frac{P_2}{\theta} \tag{6.5}$$

Thus, for all consumers of type $\theta \geq \theta'$, surplus from consuming the cleaner product is higher. For $\theta_2 \leq \theta < \theta_1$, similarly

$$e_2 - \frac{P_2}{\theta} \geq 0 \tag{6.6}$$

$$e_2 - \frac{P_2}{\theta} > e_1 - \frac{P_1}{\theta} \tag{6.7}$$

All consumers in this range consume the product offered by firm 2. This also proves that $e_1 > 0$ for $i=1,2$.

(iii) This is immediate; for, if $e_1 > e_2$ and $P_1 \leq P_2$, then, for all y , $e_1 - \frac{P_1}{y} > e_2 - \frac{P_2}{y}$. e_2 will, therefore, not be bought by anyone.

Recall that the second stage profit, π_i , is given by (3.19) and (3.20).

Lemma 2. (i) If $e_1 = e_2$, then $\pi_1 = 0$ and $p_1 = p_2 = 0$ for $i = 1, 2$.

Proof:

(i) If $e_1 = e_2$, then, if both firms charge the same positive price then each gets half the market share. This is because both firms now become identical and consumers buy randomly from a producer. However, any firm i can get the entire market by underpricing by a small ϵ ($\epsilon > 0$). There will always exist a small enough positive ϵ such that the profit increases for the firm that undercuts. This is true for all $\epsilon > 0$. Thus, the only solution is $p_1 = p_2 = 0$.

Theorem 2. Both firms will operate and they will choose different emission levels, i.e., $e_1 > e_2$.

Proof:

From Lemma 2, if $e_1 = e_2 > 0$ then each firm earns negative profit. If $e_1 = e_2 = 0$, then both firms earn zero profit. We only need to show that for all $e_1 > 0$, there exists e_2 in $(0, \bar{e})$ such that $\Pi_1 > 0$, i.e., $\frac{\partial \Pi_1}{\partial e_2} > 0$ for $e_1 > 0$ and at $e_2 = 0$. From 3.24, we obtain

$$\frac{\partial \Pi_1}{\partial e_2} = \frac{(4e_1^2 - 7e_1^2 e_2) \bar{\theta}^2}{(4e_1 - e_2)^2 (R)} - c'(e_2). \tag{6.8}$$

At $e_2 = 0$, and by property of the cost function,

$$\frac{\partial \Pi_1}{\partial e_2} = \frac{\bar{\theta}^2}{16R} > 0 \tag{6.9}$$

Thus both firms make positive profits by differentiating their product such that $e_1 > e_2 > 0$.

Theorem 3: A positive tax on output reduces the clean-up effort by the firms.

From the profit functions (4.7) and (4.8), similar to (3.23) and (3.24) we get the following first order conditions

$$(1-t) \frac{\bar{\theta}^2}{R} \frac{16e_1^2 - 12e_1^2 e_2 + 8e_1 e_2^2}{(4e_1 - e_2)^2} - c'(e_1) = 0 \tag{6.10}$$

$$(1-t) \frac{\bar{\theta}^2}{R} \frac{4e_1^2 - 7e_1^2 e_2}{(4e_1 - e_2)^2} - c'(e_2) = 0. \tag{6.11}$$

Totally differentiating (6.10) and (6.11), we get

$$\begin{bmatrix} \frac{-\bar{\theta}^2 8e_2^2(5e_1 + e_2)}{R(4e_1 - e_2)^2} - c'(e_1) & \frac{\bar{\theta}^2 8e_1 e_2(5e_1 + e_2)}{R(4e_1 - e_2)^2} \\ \frac{\bar{\theta}^2 2e_1 e_2(8e_1 + 7e_2)}{R(4e_1 - e_2)^2} - \bar{\theta}^2 2e_1^2(8e_1 + 7e_2) & -c'(e_2) \end{bmatrix} \begin{bmatrix} de_1 \\ de_2 \end{bmatrix} = \begin{bmatrix} 0 & \frac{d\tau}{dt} \\ \frac{\bar{\theta}^2 16e_1^2 - 12e_1^2 e_2 + 8e_1 e_2^2}{R(4e_1 - e_2)^2} & \frac{\bar{\theta}^2 4e_2^2 - 7e_1^2 e_2}{R(4e_1 - e_2)^2} \frac{d\tau}{dt} \end{bmatrix} \begin{bmatrix} d\tau \\ dt \end{bmatrix} \quad (6.12)$$

$$\frac{de_2}{dt} = \begin{bmatrix} -\frac{\bar{\theta}^2 8e_2^2(5e_1 + e_2)}{R(4e_1 - e_2)^2} - c'(e_1) & 0 \\ \frac{\bar{\theta}^2 2e_1 e_2(8e_1 + 7e_2)}{R(4e_1 - e_2)^2} & \frac{\bar{\theta}^2 4e_2^2 - 7e_1^2 e_2}{R(4e_1 - e_2)^2} \end{bmatrix} / \Lambda,$$

where Λ is the determinant (positive) of the matrix in (6.12) above.

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has no effect on the market value of the firm.

Public announcements are quickly reflected in a firm's stock price. We test Hypothesis 1 using the data accompanying the first release of pollution prevention information. During that time, the public did not have enough information to have a strong prior about expected behavior of the firm. Therefore this hypothesis is tested without an explicit expectations model.

Now, as the data becomes available every year, the public can conjecture the behavior of the firms and their probability of undertaking environmental improvements through measures to reduce pollution. If the announcement confirms the results of a previously announced effort, existing expectations are confirmed and there is no impact on a firm's stock price; however, if the announcement reveals new information, it will affect a firm's price accordingly.

Hence the null hypothesis may be falsely accepted if the market anticipates the behaviors of the firms. If the action is expected then any activity that confirms those expectations is not likely to have any significant impact on the stock price. Specifically, we address the issue of expectations by first formulating a model that determines the expected probability of engaging in prevention activity. Departures from expectations are then assessed.

We reformulate hypothesis 1 to incorporate expectations.

Hypothesis 2: Firms that depart from expectations in terms of commitment to pollution prevention actions do not face any stock market impacts.

Hypothesis 2A (Alternative): Firms that deviate from expectations experience stock market impacts.

We propose an expectations model that allows us to predict a company's commitment to pollution prevention activity. Several hypotheses are listed below that might explain a firm's willingness to undertake prevention activities.

Hypothesis 3: Firms with higher releases are more likely to engage in source reduction since these firms have lower marginal costs of clean-up. The level of releases can be considered as a proxy for marginal cost of clean up. The larger the releases, the lower the marginal cost of clean-up.

Hypothesis 4: Larger firms are more likely to prevent pollution. These firms have deeper pockets and therefore are likely to be more pro-active with respect to prevention efforts. The size of the firm may be considered as a proxy for the benefits that accrue to the firm in the form of a clean image. These firms also face a higher degree of consumer and community pressure.

Hypothesis 5: Industry effects are likely to be significant. Willingness to engage in prevention activities is likely to vary across industries. For example, chemical firms are more likely to engage in prevention type activities because

these firms have greater research capability and are subject to greater scrutiny.

3 Model and Estimation

We two stages. In the first stage, we develop a model that can identify the performance of companies relative to expectations. In the second stage, we measure the impact on the stock market performance. The approach is described below. First, we develop a benchmark model that assesses the probability of a firm being pro-active in terms of probability of developing new technologies, changing production processes and or instrumenting basic changes in housekeeping or in the management of inventories. We compare the predicted performance with the observed performance and stratify the sample based on their performance relative to expectations.

Next, we assess how the market values the "surprise" contained in the new announcement. We use the event study methodology to measure the effect of the announcement on the stock market valuation. Stock markets assess the effect of new information contained in any announcement. In efficient capital markets, market valuation as a measure of shareholder wealth is superior to accounting measures such as profits. Since, managers seek to maximize shareholder wealth as opposed to profits, we use stock market data to determine the impact

of firm related activities. Event study methodology is used in finance to determine the value of new information, such as earnings announcements, mergers, and takeovers.

3.1 Event Definition

The Congress passed the Pollution Prevention Law in 1990 whereby, beginning in 1991, it expanded the Toxics Release Inventory reporting requirement to include source reduction activities². The event for our analysis is the announcement of the Toxics Release Inventory data by the Environmental Protection Agency on May 20th, 1997 that pertained to 1995 calendar year releases, transfers and pollution prevention activity of all manufacturing facilities³. Firms reported their 1995 calendar year activities to the Environmental Protection Agency in 1996. The EPA compiled that information and released it to the public on May 20th 1997. Figure 1 illustrates the stages in the timeline that led to this event. The press release from the EPA captures the environmental performance of all manufacturing firms irrespective of whether or not they undertook any prevention activity:

²Facilities report if they engaged in pollution prevention activity for a certain chemical in a certain facility.

The information is qualitative.

³See Data Description.

4 Methodology

We use a logistic model to formulate an expectation whether or not the firm engages in any pollution prevention activity. Pollution prevention activity in 1994, for example, is based on the level of releases in 1993, the level of transfers in 1993, and the level of market capitalization in 1993 and dummy variables for industry effects. The estimates from this model are then used to predict the level of pollution prevention activity in 1995. Based on observed prevention activity in 1995, we can assess the extent to which firms met or fell short of expectations. The sample is stratified to measure the relative performance due to pollution prevention actions. We utilize the market model to calculate abnormal returns.

In this case, the market model relates individual returns to returns of a value weighted market index. The market model parameters are estimated for the pre-event period using ordinary least squares method. Abnormal return for a stock on a particular day in the event window is the difference between actual returns and the expected returns based on the pre-event estimated parameters. Abnormal return over this event window indicates the impact of the announcement on the firm's market value. We represent the model below,

$$R_{it} = \alpha_i + \beta_i R_{mt} + \epsilon_{it}$$

R_{it} is the return on security i at time t , R_{mt} is the return on the market at time t . The

market model provides OLS estimates for α and β . The model is estimated using daily data (251 trading days) for the pre-event period. Abnormal Return for security i at time t is represented by AR_{it} , where t is the trading day relative to the event and the event is on day 0. Abnormal return is calculated as

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt})$$

Buy and hold abnormal return is the compounded abnormal return for the event window.

This is represented by

$$\left(\prod_{t=\tau_1}^{\tau_2} (1 + AR_{it}) - \prod_{t=\tau_1}^{\tau_2} (1 + R_{mt}) \right)$$

where τ_1, τ_2 represent the event window.

Finally, average compounded abnormal return is calculated from the above equation by averaging over the number of stocks in each quartile.

We get

$$\frac{1}{N} \sum_{i=1}^N \left[\prod_{t=\tau_1}^{\tau_2} (1 + AR_{it}) - \prod_{t=\tau_1}^{\tau_2} (1 + R_{mt}) \right]$$

Our test statistic is the average compounded abnormal returns during the event window for all the quartiles.

5 Data Description and Variable Construction

5.1 Sample Selection

The companies in our sample satisfy the following criteria: first, they belong to SIC 2000-3999; second, they use or process at least one toxic chemical in at least one of their facilities; and third, they are publicly traded on the New York Stock Exchange (NYSE), or the National Association of Securities Dealers Automated Quotation System (NASDAQ).

5.2 Data Sources

We utilize four predominant data sources to combine information related to pollution and prevention activities within a firm to financial information comprising accounting data and stock market returns. These are the Toxics Release Inventory, Compact Disclosure, Trade and Quotes, and the Center for Research in Security Prices.

5.3 The Toxics Release Inventory

The Environmental Protection Agency's Toxics Release Inventory database provides pollution related information. All manufacturing plants that use at least 10 pounds or process at least 25 pounds of any of the 320 toxic chemicals, and employ at least 10 persons are

subject to the reporting requirement under the Emergency Planning and Community Right-to-Know Act of 1988. Beginning in 1991, in addition to reporting the amount of pollution, each facility was required to report whether or not it engaged in pollution prevention activities during that calendar year. The EPA compiles this self-reported data and makes it available to the public, annually. A company with ten different plants, using or producing an average of 4 toxic chemicals per plant, files 40 TRI records with the EPA. For each chemical at each plant, the TRI record provides detailed information on releases and source reduction activities. Each plant record reports the parent name and a parent identifier called the Duns number. From the TRI data we obtain information on releases and source reduction activity level for the plants. Our aggregation algorithm uses a combination of the Duns number and parent name⁸

⁸The 1993 TRI consisted of 81878 plant records. However, 30% of this sample did not report any parent company information and is therefore, automatically excluded from our analysis. We aggregated the remaining plant and chemical specific records to unique companies to obtain firm level data on total releases and source reduction activity for 1993. Similarly, there are 78,220 records that are submitted for 1994 and 73,311 records that are submitted for 1995.

5.4 Compact Disclosure

Since the purpose of our study is to analyze the stock market reaction to pollution related actions, our next step is to identify the publicly traded firms within all the firms that report the TRI information, and then acquire information on returns. Since, there is no pre-existing stock market identifier in the pollution data, we use several different data sets to acquire that information. The Compact Disclosure provides a Duns number, parent name and the CUSIP information for 4,270 publicly traded companies. While each firm is required to report the CUSIP, it is not required to report the Duns number in the Compact Disclosure database. We use a two step matching process to merge this data with the TRI. In the first step, we obtain all possible matches between the TRI data and Compact Disclosure using the Duns number. In the next step, we use the parent name, to match companies that escaped matching due to a missing Duns number. The remaining companies which were in the TRI database but which did not match with Compact Disclosure are largely privately held companies. Nevertheless to further maximize the number of matches between TRI and the financial data we utilize a database called Trade and Quotes to retrieve any publicly traded companies which did not match with Compact Disclosure.

5.5 Trade and Quotes Data

This data provides the parent name and the cusip number for all publicly traded companies. Using the company name, we obtain additional matches with the TRI and Ticker and Quotes data. Some companies report multiple Duns listings for legal or accounting purposes. We exclude these from our sample, since this would complicate our analysis⁶. The merged data contains information on releases and a stock market identifier. Our final data contains pollution related information for the years and a stock market identifier for 704 companies⁷.

5.6 Center for Research in Security Prices

After obtaining the release profiles of these companies, their returns are obtained from CRSP. Of the 704 companies in our sample, returns are available for 645 firms. Some firms drop

⁶This accounts to less than 10% of the sample. Excluding such occurrences from our sample we obtain 1012 unique companies in 1993, and 960 unique companies in 1994 for which we have pollution related information and a stock market identifier

⁷A firm could be missing the pollution related data for one year if it failed to report or was unaware of the reporting requirement of the TRI. Failure to report could also be due to intentional evasion. It could also be that a firm only recently expanded its usage of toxic chemicals whereby it was obliged to start reporting the data. Alternatively, it could have reduced the use of chemicals to below the threshold for the reporting requirement.

out of the sample because returns for the event date are either missing or because returns are not available for the pre-estimation period.

5.7 Variable Construction

All variables that are used in the analysis have been obtained by aggregating information over all plants and chemicals of a firm. EXTTPP is the extent to which the firm undertakes pollution prevention as a proportion of total available opportunities. Companies that report EXTTPP could be reporting source reduction for several chemicals within one facility or one chemical in several facilities or several chemicals in several facilities. The value of EXTTPP is reported as a percentage and lies between 0 and 100.

6 Results

Figure 1 provides a description of the regulatory background that led to the event, which was the requirement for all firms to report pollution prevention activity within a plant for all toxic chemicals for all manufacturing firms. This data is reported and released on an annual basis but with a lag. The timing is shown for the relevant years in our study.

6.1 Pollution results

Table 1 provides summary statistics by announcement of prevention activity: 65% of our final sample of 637 firms reported a mean prevention effort of 39%; 35 % of the sample did not report any source reduction effort. Firms that reported prevention effort in 1994 also reported higher average and median releases in 1993 as compared to firms that did not report any such effort. The average level of releases in 1993 for the group that engages in prevention is sixteen times the level of releases for the group that did not engage in prevention; the average level of transfers is eight times. Firms that engaged in prevention in 1994 had a roughly four-fold level of market capitalization and a three-fold level of net sales in 1993.

6.2 Logistic model

We model the probability of engaging in prevention based on explanatory variables such as the level of releases and transfers, the size of the firm and industry dummies. Table 2 reports only the significant variables in the regression. To avoid the problem of endogeneity the explanatory variables are chosen from the prior year. The logistic regression models the logit transformation of the lit firm's probability of engaging in prevention, as a linear function of explanatory variables. The parameter estimates indicate that the logit transformation of the

event probability will increase by 0.00109 for every increase of thousand pounds of releases. An increase of market capitalization by a million pounds increases the logit transformation of the event probability by 0.000663. Higher releases and higher market capitalization in 1993 increased the likelihood of engaging in prevention in 1994. The concordance between predicted and observed responses is 76%.

Table 3 utilizes the parameter estimates from the logistic regression above to compute the predicted probability of engaging in pollution prevention activity in 1995. The parameter estimates obtained from 1994 data are used to predict probability of engaging in pollution prevention for 1995. The sample is then classified based on the extent to which the probability of engaging in prevention departed from the prediction based on the logistic model for the previous year. The sample is organized into quartiles, where the bottom quartile on average fell short of the predicted responses. The table indicates the difference between actual outcome and the predicted probability of engaging in prevention. For the bottom quartile, this difference is -59% (actual performance fell short of expected performance); for the top quartile the average difference is about 46% (actual performance exceeded expected performance).

Table 4 presents results of the event study for the four quartile groups derived from Table 3. The first column reports the number of firms for which the returns data is available. The

second column indicates the event window⁸. The third column computes the average buy and hold abnormal returns for the event window where these returns are calculated using the formula

$$\frac{1}{N} \sum_{i=1}^N \left[\prod_{t=t_1}^{t_2} (1 + R_{it}) - \prod_{t=t_1}^{t_2} (1 + R_{m,t}) \right]$$

The event date is the day of the announcement and is referred as date 0. (-1) is the day preceding the announcement. The results indicate that firms that fired went in relation to expectations, experienced a negative return of -0.52%, that was significant at the 5% level. Firms that belonged to the third quartile and which also underperformed experienced a negative return of -0.87% which was also significant at the 10% level. However, firms that exceeded expectations faced a slight negative return but that this result was not significant.

Result 1: Firms that fail to achieve the anticipated commitment to prevention efforts are penalized.

Result 2: Firms that exceed their expected level of prevention activity do not receive any reward.

⁸The choice of the window is standard in the literature.

The results suggest a possible interpretation. Firms that failed to meet expectations suffered a penalty in the form of a reduction in returns. However, this was not symmetric as firms that exceeded standards were not rewarded during the event window. Firms that engage in voluntary actions have an incentive to make their actions known to the public prior to announcements by the EPA. As a result the EPA announcement does not capture the good news related to the firms' prevention efforts. Firms that just meet the expectations have no incentive to advertise their efforts since they receive no significant benefits but must incur a cost to publish bulletins, make press releases or distribute corporate literature. Firms that do not engage in prevention also do not have any incentive to advertise their efforts. Firms that do not announce their efforts are expected therefore either to meet their targets or have a shortfall. The revelation by the EPA of their shortfall is still news for the "laggard" firms. When they fail to meet expectations they are penalized on the day of the announcement. Firms that outperformed expectations leashed their actions to the market to benefit from the effects due to positive recognition.

The results would be sensitive to the expectations model. The expectations model is consistent with Arora & Cason's characterization of participation in the 33/50 program (1994 & 1995). It is also consistent with Decanio and Wilkin's analysis of characteristics that determine a firm's adoption of energy efficiency technologies. Finally, the results are supported by research investigating the characteristics that determine participation in the

Climate change program (see Panagiotis, 2000).

For the 1991 data, we measure the stock market impact without incorporating an expectations model. We observe similar results for the release of the 1991 data. As discussed earlier, when the data was released for the first time the public did not have enough information to formulate a good prior about the expected prevention activity within the firm.

Result 3: Firms that undertake prevention activities experience no decided gains or losses in the announcement window.

Result 4: Firms that fail to participate and engage in prevention activities face a negative return on the day of the announcement.

607 firms were identified as having participated in prevention activities in 1991. These firms did not experience any significant gains or losses in the announcement window. In contrast, the 158 firms that did not engage in prevention during the same period suffered a loss related to the announcement of the TRI on May 25th 1991. Their cumulative average abnormal returns declined by 0.32 %. This decline was significant at the 10% level. These firms wait for the EPA to disseminate the pollution related information. For firms that engaged in prevention, since the announcement confirms the result of the leaked information, there is no gain during the event window $-1, 0$. The results indicate that firms that engaged in prevention did not gain market value on the day of the announcement, however firms that did not engage in prevention were penalized. This result is consistent with the previous

interpretation.

Several explanations are consistent with the findings noted above. First and foremost the results are consistent with the asymmetric results observed in finance. Similar to the observed asymmetry in these results several finance studies have noted an asymmetry with respect to announcement of dividends. Two notable studies are Asquith and Mullens (1983) and more recently, Christie (1994). Asquith and Mullens show that when firms initiate cash dividend payments the market response is just about 3%. On the other hand, dividend reductions of even 20% or less provoke a market response of almost -5% with omissions of larger than -7.4%. Thus there is an observed asymmetry with increases resulting in smaller gains relative to losses due to dividend decreases or omissions. This certainly makes intuitive sense. If it were the opposite, the company would announce good news followed by bad. It would keep on doing so, and soon the stock would double in value.

Second, the results are consistent with yet another explanation. From Table 3, we know that on average for the entire sample, firms fall short of their expected commitment by 7%. It is reasonable to say that the market may expect that formal regulation will be passed to force firms to reduce pollution. If that is the case, then firms that failed to perform according to expected pollution prevention activity would be penalized severely. On the other hand, firms that exceeded the expected level of pollution prevention activity may see insignificant gains or even losses for fear of tighter regulations ahead.

Third, it is entirely reasonable to believe that each firm develops a pollution prevention approach after examining the costs and benefits of undertaking such actions. For each firm that chooses an optimum level of pollution prevention activity that may be positive or even zero. Firms that follow a path that differs from this optimum level are likely to be punished by the market. The optimum level of pollution prevention activity can be probed by the expected level of activity that is derived from the legit model, where releases indicate the marginal costs of clean-up and size indicates the marginal benefits. Our results indicate that there is an asymmetry. This leads us to conclude that while there is a severe penalty for under-compliance, there is no comparable premium for over-compliance with respect to expected level of activity.

Overwhelmingly, the results indicate that firms experience losses if they fail to perform according to expectations but fail to achieve the rewards resulting from exceeding expectations. Of course, this finally begs the questions as to why firms that engage in pollution prevention actions do not capture the positive gains. One possible answer that is given is that this information is likely to leak since firms might seek to gain public recognition prior to the EPA's announcement. This would suggest that we see a positive reaction for the firms in the days preceding the announcement. The analysis is more complicated since the window for leakage could be anywhere from 1995-1997, i.e., the time that the firm adopts a prevention approach until the time that the information is publicly revealed by the EPA.

That data collection is underway and will be a subject of future research.

7 Conclusion

In this study, we obtain the result that firms that fail to undertake pollution prevention actions suffer a penalty on the day of the announcement. We also observe that a firm's willingness to engage in prevention increases with releases in the preceding year, and the size of the firm. Firms that exceed their prevention effort do not seem to reap a premium in the form of a higher price. This may be partly explained by the higher probability of leakage for these firms. As a result they are unable to capture any gains on the announcement date.

This paper has measured the gains/losses in the short run. Even under the assumption of market efficiency, the market is unable to fully anticipate the effects due to innovation that might arise when firms develop new products or adopt new processes to reduce waste. This study will be followed by a long run study that will examine the performance of firms that undertake environmental improvements and compare them with firms that fail to do so over a period of 3-5 years.

FIGURE 1
Event Timelines

This figure provides a regulatory background that led to the announcement of the Toxics Release Inventory for releases and pollution prevention activity. We show the important dates for the study.

Pollution Prevention Law	Calendar Activity Measured by Firm	Calendar Activity for 1991 Report Deadline to EPA	Announcement of 1991 Activity for All Firms by EPA
1990	1991	July 1st 1992	May 28th 1993
1990	1995	1996	May 20th 1997

TABLE 2

Summary Characteristics

This table provides the summary statistics for the explanatory variables in the logistic regression. Approximately 66% of the firms in the sample, reported some kind of pollution prevention activity for some facility or some chemical. In contrast, the remaining 34% of the sample reported no pollution prevention activity. Firms that engage in prevention have higher net sales, and higher market capitalisation. Similarly firms that engage in prevention have higher releases and transfers in 1993, compared with firms that do not report any pollution prevention activity.

Variable	Summary	Entire Sample N=637	With prevention (1994) N=485	No prevention (1994) N=229
Extent of Prevention in 1994	Mean	25.19	29.02	0
	Median	18.38	29.22	0
	Std. Dev.	30.34	29.77	0
Net Sales in 1993	Mean	2980.36	3811.853	1447.01
	Median	378.05	786.326	291.988
	Mode	9779.459 (N=636)	11638.92 (N=407)	4641.497 (N=229)
Market Capitalisation in 1993 (Millions of Dollars)	Mean	2633.71	3417.527	984.6132
	Median	417.627	551.2184	182.0765
	Mode	7415.179	8925.57	2701.437
Sum of Releases in 1993 Pounds	Mean	1561900	2356843	146611.6
	Median	67000	198333	14131
	Mode	9339033	11379378	690391.7
Sum of Transfers in 1993 Pounds	Mean	3090180	4501834	576084.8
	Median	80063	228589.5	13857
	Mode	19983723	24699750	3088750

TABLE 7
Logistic Model

Estimation Results from logistic model, $\log \frac{Y_i}{1-Y_i} = \alpha + \beta X_i$, where Y_i is the probability of undertaking pollution prevention in 1994. The logistic regression establishes that the probability of adopting prevention activities increases for companies that have higher releases in 1993. Higher market capitalization increases the likelihood of engaging in prevention. The logistic regression reports a concordance of 76.0% between predicted probability and observed responses. The logistic model allows us to compute the likelihood of a firm engaging in prevention in 1994 based on explanatory variables. Dependent variable = Log odds ratio

Variables	Sample Selection Estimate	Model Standard Errors	Wald Chi-square
Constant	0.6980	0.1024	0.8791
Releases in 1993	0.00009109	0.009802428	20.1394
Market capitalization in 1993	0.500003	0.090032	3.8517

Table 3
Stratified Sample

Based on estimates from the logistic regression for participation decision in 1994, we use the estimates to predict prevention activity in 1995. The second column in this table is the difference between actual and predicted responses. For the bottom quartile, the actual performance is less than expected by 39%. For the top quartile the difference is 46%.

Stratified Sample	Departure from expectation (Actual - Expected)
Entire Sample	-7.56%
Bottom Quartile	-50.43%
Third Quartile	-41.91%
Second Quartile	25.43%
Top Quartile	45.69 %

Table 4
Event Study

This table presents the stock price reaction to the announcement of the Toxics Release Inventory on May 20th 1987. The stock market reaction is based on the market model with an equal weighted index. Abnormal return is calculated as $AR_{it} = R_{it} - (\alpha_i + \beta_i R_{m,t})$. The stock market reaction is shown for the stratified samples based on whether firms exceeded/fell short of expectations.

Firms that fell short of expectations from the logistic model are penalized heavily on the day of the announcement. Other firms do not face any significant effect on the day of the announcement. Firms that failed to engage in pollution prevention as predicted by the logistic model faced a decrease in the average compounded abnormal returns for the event window (-1,0). Firms that exceeded prevention activity over and above the predicted level did not experience any significant average compounded abnormal returns during the event window. N denotes the number of firms for which the data on returns is available from CRSP.

Company category	Window	Average Compounded Abnormal Return	T-ratio
Bottom Quartile (N=128)	(-1,0)	-0.32%	-2.81**
Third Quartile (N=184)	(-1,0)	-0.37%	-1.92*
Second Quartile (N=169)	(-1,0)	-0.12%	-0.85
Top Quartile (N=184)	(-1,0)	-0.13%	-0.47

Note: * statistically different from zero at the 10% level ** statistically different from zero at the 5% level

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**Voluntary Abstention and Market Value:
An Event Study Approach**

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February 2001

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Voluntary Abatement and Market Value:

An Event Study Approach

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Abstract

While public benefits of environmentally friendly practices are well understood, there is anecdotal evidence that suggests that firms that follow such practices also receive private benefits. The paper investigates the effect of voluntary pollution prevention activity in creating private value for the firm. Our sample consists of 635 publicly traded companies for which we have pollution related and financial data. Using event study methodology, we examine the announcement effects accompanying the Toxic Release Inventory report for the firms in our sample. We incorporate an expectations model and then examine how firms perform when they depart from expectations. Our analysis provides some evidence that firms that fail to undertake environmental improvements see a decline in their market value. However, firms that exceed their expected level of activity experience insignificant market impacts.

JEL Classification: H0, Q2

Keywords: environmental regulation, event study, Toxic Release Inventory, private benefits

1 Introduction

The public economics literature contains several seminal papers devoted to the study of the environment. This literature has traditionally focused on the "public" nature of environment related actions, wherein a firm makes environmental improvements, creates public benefits, but incurs a private cost. Standard literature explains good environmental behavior as 'socially conscious,' implying that firms engage in this behavior for social good. Private benefits due to good corporate citizenship are largely fuzzy. For the large part, since firms do not appropriate any private rewards, they lack an incentive to be environmentally friendly. Firms are therefore regulated in the absence of private incentives. Regulation requires companies to be environmentally friendly:

However, recently several papers have documented the existence of systematic over-compliance with environmental regulations. Evidence from a voluntary pollution prevention initiative of the Environmental Protection Agency (EPA) indicates that over 30 % of the firms that were emitting certain harmful chemicals volunteered to eliminate their production, even when these companies did not violate any prevailing restrictions (see Arora and Casson, 1995 & 1996). Many companies report pollution prevention activity even in the absence of regulations. Companies profess environmentally friendly behavior in self-initiated environmental reports.

The empirical literature has neglected to examine the private incentives for firms to undertake voluntary pollution prevention activities. When examined, the question has not been addressed using such a comprehensive sample. Hamilton (1995) employed the event study methodology and showed a negative stock market effect for companies that were revealed as large toxic polluters. Unlike previous studies that have examined the impact of environmental accidents, this paper attempts to capture the value of prevention activities conducted by the firm.

The hypothesis of this paper is that companies undertake pollution prevention activities for private economic gain. Companies that pledge pollution prevention activities earn consumer goodwill, gain investor confidence, earn community trust, and/or realize cost savings by reducing waste. Previous research has identified the kind of firms that engage in voluntary prevention behavior (see Atora and Cason, 1995). This paper uses the event study methodology to measure the effect of environmental actions (related to announcement of pollution prevention) on firm value. Pollution data pertaining to releases and prevention efforts are obtained from the Toxics Release Inventory (TRI). Stock prices and returns are obtained from the Center for Research in Security Prices.

This study is based on comprehensive data that relates environmental performance to the stock market data. We examine pollution-related data for approximately 5000 public and private companies. Since we are interested in the stock market reaction, we limit our

study to publicly traded firms. Our data set comprises all publicly traded industrial firms that use toxic chemicals. Our final sample consists of approximately 704 publicly traded firms. Other firms drop out of the analysis as they are privately held or because they did not survive the matches with the financial data for other reasons.

We measure the stock market impact of the announcement of the Toxics Release Inventory by the Environmental Protection Agency. The primary result of our paper is that firms that are revealed to fall short of expectations in terms of their commitment to pollution prevention efforts see a decline in their stock market value. In contrast, firms that meet or exceed their resolve to pollution prevention activities are not rewarded on the day of the announcement. Several explanations are consistent with the above result. First, that similar to some finance studies relating to the announcement of dividends, here too the market penalises bad news more than it values the good news. Second, that since for the overall sample, the average performance falls short of expectations, it is reasonable to infer that the market expects that formal regulation would be imposed. As a result, firms that fail to meet expectations are heavily penalised and those that exceed standards are marginally penalised due to the fear of pending regulations.

Third, the results are consistent with the idea that each firm must engage in some optimum level of pollution prevention activity. Any attempt to depart from this optimum (provided by the expectations) would result in the market punishing the deviants and the

enthusiasts equally. Here too, we observe that punishment is more severe for the detourists. All this leads to the conclusion that while there is a severe penalty for under performance there is an insignificant impact for over-performance.

Last, another explanation could be that firms with a good performance have an incentive to make their positive actions known to the public. While firms that are "legged" wait for the EPA to disseminate the information, firms that act on their expectations make these actions known to the public, in advance of any EPA announcements. In that sense, the announcement by the EPA does not convey any "new" information and hence is already incorporated in the stock price.

The plan of the paper is outlined below. Section 1 introduces and motivates the objectives of our research. Section 2 outlines the hypotheses, Sections 3 and 4 outline the model and estimation methodology and Section 5 describes the data. Finally, section 6 presents the results and concludes.

2 Hypotheses

We determine the impact of pollution related variables on the market valuation of the firm. A firm might pursue an environmentally friendly strategy for several reasons. First, if the cost of obeying environmental regulation is lower than the penalties due to non-compliance,

then the firm benefits by being environmentally friendly. While the above motivation for being friendly is the fear of existing regulation, the threat of potential regulation could also influence a firm's environment related actions.

Second, firms might reduce releases to benefit from consumer goodwill and public recognition. This motivation may exist even in the absence of direct regulation. For example, firms that reported their releases under the Toxics Release Inventory program achieved reductions for chemicals in subsequent years of reporting even though these chemicals were not subject to any formal reduction requirements. Firms that reported reductions under the TRI for certain chemicals could have potentially benefited from the Early Reductions Program. But these chemicals did not experience significantly higher reductions (see Arora and Cason, 1996). This suggests that reductions obtained under the Toxics Release Inventory are not being driven by existing regulations. While the potential to reduce litigation costs is a powerful incentive to reduce emissions, current TRI releases are subject to a reporting requirement but not a reduction requirement. If information on the pollution record of all firms is publicly available, the firm can appropriate the benefits of consumer goodwill. Then if benefits of controlling pollution exceed costs then the market perceives these actions to reduce pollution as an opportunity to increase the value of the firm.

Third, firms reduce releases to benefit from cost reductions. The idea of reduced releases

and cost savings is recent and supported by anecdotal evidence¹. Pollution may be controlled after it has been created or before it is generated in the production process. To clean up waste after it has been created, involves use of control technologies. Pursuing end-of-pipe solutions is always costly to the firm as this means resources are devoted to the cleaning up after the waste has been created². The other approach involves source reduction or pollution prevention. According to Porter, controlling pollution through source reduction can result in innovation. A firm that undertakes source reduction efforts, tries to develop new ways of reducing waste, which may have the effect of triggering innovation. This could translate into cost savings in the short or the longer run.

A company claims to engage in prevention efforts if it adopts good operating practices, controls inventories, prevents spills and leaks, modifies raw material, uses less toxic cleaning and degreasing solvents, modifies its process and or, modifies its product. The method of source reduction, the timing of adoption and consequently the effect on releases varies for each firm in our sample.

Hypothesis 1: The announcement relating to pollution prevention activity

¹GM's Pollution Prevention Program and Chevron's Save Money and Reduce Toxics program are examples of some successful pollution reduction programs.
²End of pipe technologies consist of installing a scrubber or buying an equipment to render the waste benign.



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I have taught for several years as Assistant Professor of Management at the Owen Graduate School of Management at Vanderbilt University and am currently visiting and teaching at Stanford University. At Vanderbilt University, I co-developed an environmental curriculum at the business school that was ranked among the top in the country (notable mention by Business Week and Business Ethics magazine). I was a Gilbert White Fellow at Resources for the Future in Washington and have been a consultant with the World Bank on several projects.

POLICY SIGNIFICANCE OF MY PUBLISHED WORK

My research philosophy and my academic work are driven by my strong desire to positively influence policy making through rigorous research. My academic work is one of the first to evaluate the effectiveness of a voluntary approach to regulation. Until recently, standard approaches to environmental regulation consisted of command and control, taxation and emissions trading. My work relies on industrial organization theory and financial and empirical methods to establish that a voluntary approach to regulation, together with mandatory public disclosure of a firm's environmental profile provides strong motivations for firms to improve their environmental performance. The US Environmental Protection Agency has wholeheartedly embraced this approach to regulation. Success of this information-based approach to regulation in the US has encouraged other countries to experiment with their own versions of voluntary programs.

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An Experiment in Voluntary Environmental Regulation: Participation in EPA's 33/50 Program¹

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The U.S. EPA has initiated the 33/50 program to encourage firms to voluntarily reduce air pollutants and toxics of 17 toxic chemicals. This paper examines the factors leading to participation in this program to assess its potential to augment more traditional command and control regulation. This article shows that large firms with substantial toxic releases in environmental hotspots are the most likely participants. The results also indicate that public information and programs play an important role and that EPA and other regulators can improve environmental performance by encouraging companies to voluntarily reduce quality. © 1995 Academic Press, Inc.

1. INTRODUCTION

Under command and control environmental regulation, conventional wisdom says that firms exactly meet the minimal standards prescribed by law. However, recent empirical research has documented substantial differences in environmental performance across firms within an industry. Booth *et al.* [5] demonstrate a large variation in the amount of waste generated across establishments that is unaccounted for by industry effects and the stringency of environmental regulation in different states. If some firms overcomply with minimum environmental standards, voluntary environmental regulation that encourages such overcompliance may achieve significant results. This paper evaluates the factors leading to participation in one important voluntary program—the U.S. Environmental Protection Agency's (EPA) 33/50 program—to assess the potential ability of voluntary programs to augment more command and control regulation. The progress of the program is tracked through the publicly available Toxics Release Inventory (TRI) data. Public awareness in itself can engender voluntary actions and both the TRI data and the 33/50 program can combine to offer a potentially useful supplement to command and control regulation. The results indicate that large firms with

¹We thank Hugh Wooley and Bob Denny of the EPA for assistance with the TRI data and Tom Mohr for advice on chemical toxicity. Aliza Shalunov, Jim Boyd, Terry Davis, Robert El, Wayne Harrington, Jeff Meyer, Paul Parnell, Marco Schapiro, Chris Tynan, three anonymous referees, and seminar participants at the University of Southern California, Resources for the Future and the Western Economic Association 1992 Conference presented helpful comments on earlier drafts. We accept responsibility for any errors.

substantial chemical releases are the most likely to participate and that participation is greatest in unconstrained industries. We believe that this suggests that the EPA can achieve significant results with thin and smaller information-based voluntary programs by encouraging competition in environmental quality.

Overcompliance may often result from the use of uniform abatement technologies in environmental regulation [11]. However, this overcompliance is unintended. In contrast, voluntary overcompliance with environmental standards is a relatively recent phenomenon. By overcompliance, we mean that if the law requires toxic emissions reductions of 50% some firms voluntarily pledge to reduce emissions by more than 50%. In many cases overcompliance with standards is intentional and not merely incidental. Firms often make a conscious effort to reformulate products or re-design production processes even when it is costly. For documentation on some interesting case studies, see Sinner [13].

Compliance of environmental standards under conditions of low surveillance and minimal fines is in itself an interesting phenomenon. Harrington's [8] explanation stems from the dynamic nature of the game between firms and the enforcement agency in which violations are threatened with perpetual surveillance. As a result, even though the expected penalty in any period is lower than the cost of compliance, firms comply with the law in each period.

Intentional overcompliance is obviously costly for firms, so it must also generate some benefit. Several recent theoretical studies have considered this overcompliance puzzle. Aroa and Otagoeddy [2] attribute the growth in overcompliance to consumer preferences for environmental quality. Increased public scrutiny has led firms to voluntarily self-impose stricter emission reduction targets. Information on the environmental record of firms is now readily available as the Toxic Release Inventory under the Emergency Planning and Community Right-to-Know Act (EPCRA) passed in 1986. Furthermore, recent survey evidence indicates a willingness to pay slightly more for environmentally clean products [7]. In the model developed in Aroa and Otagoeddy [2] all consumers value environmental quality and have identical preferences but differ in their income levels and hence in their ability to afford a cleaner environment. Firms choose to differentiate markets by income levels. Preferences for environmental quality thus combine with competition to induce some firms to overcomply with uniform standards.

Overcompliance can be a rational response to the anticipation of stricter regulation in the future. However, Bousard and Denis [4] show that with increasing marginal costs of clean-up and a uniform percentage reduction rule, firms have incentives to delay clean-up. Controls on emissions may paradoxically increase profits for a regulated industry with restricted entry [6, 9]. Therefore, another explanation is that firms overcomply with environmental regulations to guide regulatory authorities to set higher standards for the industry, thereby raising the cost of compliance for other firms and restricting competition [12, 3]. Overcompliance may also result from heavy investments in pollution abatement.

2. AN OVERTHROW OF THE 33/50 PROGRAM

In the current empirical framework, a firm is said to voluntarily overcomply if it participates in the EPA's 33/50 program. The EPA initiated the 33/50 program

in February 1991 as a voluntary pollution prevention plan designed to reduce releases and transfers of 17 high-priority toxic chemicals by 33% at the end of 1992 and by 50% at the end of 1993. The program emphasizes waste prevention rather than waste treatment. It encourages firms to develop less toxic substitutes, reformulate products and redesign production processes to achieve source reduction rather than resort to end-of-the-pipe clean-up.

In February 1991, EPA invited 335 companies with substantial chemical releases to participate in the program. In July 1991, it extended the invitation to an additional 3000 companies. Participation in the program is purely voluntary, and EPA claims that it will not give preferential treatment of any kind to the participants in the form of relaxed regulatory oversight or enforcement of other EPA regulations:

The voluntary nature of the Program means that a company's decision to participate does not change its obligations for complying with all other laws and regulations. Participation in the program is enforcement neutral; a company will receive no special scrutiny if it elects not to participate and receive no relief from normal enforcement activities if it does elect to participate. (A, p. 11, emphasis added)

A deeper, empirical question concerns the actual behavior of the agency: Does EPA actually enforce regulations equally for participants and non-participants? Unfortunately, if any existing differences are inferred then this question is difficult to answer. However, it seems plausible that if 33/50 participants received preferential treatment, then there would be a lower proportion of 33/50 participants penalized by EPA. To test this conjecture, we reviewed the recent enforcement decisions and proposed penalties under the Toxic Substances Control Act (TSCA) (14). Of the 23 companies that were fined, 8 were 33/50 participants (35%). The EPA imposed the largest fine (\$17 million) on Chevron Chemicals, a 33/50 participant with a pledged toxics reduction of 58%. Stepan Company, another participant, was fined \$4.8 million. This evidence does not seem to support the view that 33/50 program participation buys less stringent EPA enforcement.⁷

The 33/50 program is a unique regulatory experiment that assesses cooperation between regulators and industry, is non-subsidized, and provides positive feedback and awards to participating firms. Commitments to achieve reductions are not enforceable by law and firms can renege on their commitment. As of February 1992, 234 of the approximately 5400 invited firms have committed to participate in the program and have submitted detailed plans with measurable and targets. The direct benefit of program participation are public recognition by EPA and special awards for innovators and firms with outstanding pollution prevention achievements. In comparison with mandatory programs, this voluntary program allows firms the flexibility to make the most cost-effective emission reductions. Prior to the 33/50 program, many companies had already initiated internal waste reduc-

⁷ Furthermore, the agency enforcement program is decentralized into different offices: Air, Water, Solid Waste, and Emergency Response (AWT), and Toxics. Even within the Toxics unit discussed here (i.e., in the enforcement of the TSCA), participation in the 33/50 program does not seem to substantially reduce imposition of settlements, hearings or enforcement of other programs. It probably even has likely, although under the current administration the agency's enforcement is being reorganized. Moreover, most of the EPA's enforcement takes place at the state level, whereas the 33/50 program is federal. We consider it unlikely that there would be widespread inaction in the state enforcement program.

tion programs.¹ Firms also benefit from the Pollution Prevention Information Exchange System (PIES)—through which they can obtain technological information—although non-participating firms can also use this system. There is also anecdotal evidence that suggests that the participants in the 33/50 program receive vendor selection preferences in intermediate goods transactions, such as for parts supply in the automotive industry.² The EPA provides assistance to firms as part of the program by conducting regional pollution prevention workshops. The regional 33/50 workshops concentrate on public outreach as well as demonstrate successful instances of source reduction. In addition to PIES, the EPA has also published a training guide (*Pollution Prevention Resources and Training Opportunities in 1992*), developed a series of bibliographic reports with details on pollution prevention and recycling techniques, and published the *Waste Minimization Opportunity Manual*.

The EPA tracks the progress of the program through the TRI which was created in 1988 as part of the EPCRA. This act makes it mandatory for each establishment to report its releases and transfers of over 100 toxic chemicals (see Section 4.1 for more details and [18]). The 33/50 program focuses on 17 of these chemicals chosen because of their toxicity, the large volumes in which they are produced by industry, and the pollution prevention opportunities for these chemicals.³ Table 3 lists the 17 chemicals. In 1989, these 17 chemicals accounted for about one-fourth of the total TRI releases and transfers [16]. This study focuses on the seven industries with the greatest releases and transfers of 33/50 chemicals. The program integrates all media to reduce releases into the air, land, and water; however, about 70% of the 33/50 chemical releases are into the air so this is primarily an air toxics program.

Unfortunately, it is not possible to clearly distinguish between firm responses to the publication of the TRI data from firm responses to the 33/50 program. The 33/50 program gives positive publicity to the participants in the program, whereas the TRI data provides negative publicity for the large polluters. There is anecdotal evidence that publication of the TRI data in 1988 "shamed" several top polluting firms to voluntarily reduce toxic releases. The 33/50 program was developed in part to take advantage of this voluntary sentiment, and its design was influenced by the Pollution Prevention Act. The 33/50 program originated in the EPA [19], and key recommendations of this report were the basis of the 33/50 program—including a reliance on information tools, a focus on pollution prevention, and a multimedia approach. The close timing of the TRI publication and the 33/50 program initiation does not allow us to determine whether the negative or positive publicity is more important for encouraging, nevertheless, this does not change our main conclusion that voluntary programs benefit from greater information. A beneficial aspect of the 33/50 program is that it generates a cooperative relation between the EPA and industry. However, the 1991 TRI data reported in the recent 33/50 program status report [15, Table 2] suggests that the program has influenced the pattern of toxic releases. Before the introduction of the 33/50

¹Company names such as PPG (Pollution Prevention Paid), SMART (Save Money and Reduce Toxic), and VTEAP (Value Reduction Always Pays) are manifestations of this trend.

²Process consultations with Chem Trust of the EPA.

³The choice of chemicals was made by the EPA, and we believe that it is unlikely that it resulted from a strategic move by large chemical companies to reward competition and increase entry barriers.

VOLUNTARY ENVIRONMENTAL REGULATION

TABLE I
List of 33/50 Chemical Categories and Corresponding TRI Categories

TRI chemical name	33/50 Chemical name
Cadmium compounds	Cadmium and compounds
Cadmium	
Chromium compounds	Chromium and compounds
Chromium	
Corrosives	
Lead compounds	Lead and compounds
Lead	
Mercury compounds	Mercury and compounds
Mercury	
Nitric compounds	
Nitric	
Organics	Organics
Methyl ethyl ketone	Methyl ethyl ketone
Methyl isobutyl ketone	Methyl isobutyl ketone
Toluene	Toluene
Xylene (total isomers)	Xylene
n-Xylene	
o-Xylene	
p-Xylene	
Carbon tetrachloride	Carbon tetrachloride
Chloroform	Chloroform
Dichloromethane	Dichloromethane (methylene chloride)
Trichloroethylene	Trichloroethylene
1,1,1-Trichloroethane	Trichloroethane
Tetrachloroethylene	Tetrachloroethylene
Chloride compounds	Chloride
Hydrogen cyanide	

program, between 1988 and 1990 the releases and transfers of 33/50 program chemicals fell by 16% while the releases and transfers of non-33/50 chemicals fell by 24%. In contrast, this pattern changed dramatically after the program was initiated. Between 1990 and 1991 the releases and transfers of 33/50 program chemicals fell by 21% while the releases and transfers of non-33/50 chemicals fell by only 8%. An interesting possibility that we do not address here is whether the reductions in the 33/50 program chemicals may be "crowding out" potential reductions in other chemicals.

3. THEORETICAL CONSIDERATIONS

In this cross-sectional analysis, we seek to explain firms' discretionary decision of whether or not to participate in the 33/50 program. Does the expected profit of firm *i* from program participation as EIT? and the expected profit from not participating as EIT? If firms maximize expected profit, firm *i* joins the program if the expected profit from participation is greater than the expected profit from

not participating that is,

$$D_i = \begin{cases} 1 & \text{if } \sum_j \pi_{ij}^* \sum_k \pi_{ik}^* + \epsilon_i > 0 \\ 0 & \text{if } \sum_j \pi_{ij}^* - \sum_k \pi_{ik}^* + \epsilon_i \leq 0 \end{cases} \quad (1)$$

D_i is an indicator variable equal to one under program participation and ϵ_i is an error term that captures unobserved attributes of firm i . We do not attempt to derive a structural form of this expected profit difference. This section simply outlines the observable factors suggested by theoretical considerations that may affect this expected profit difference and firms' incentives to participate.

First, technological and production processes in different industries may lead to differential environmental performance and costs and benefits of program participation. In particular, industries may differ in their ability to develop cleaner technologies and use less toxic substitute chemicals. Furthermore, the strength of trade and manufacturers' associations can dramatically influence industry commitment to the development of environmentally benign technologies. For example, the Chemical Manufacturers' Association actively promotes the Responsible Care program of the chemical industry.⁶ Industries also differ widely in their research and development (R&D) intensity and in their degree of contact with final consumers because of differences in their product mix. According to the theoretical model of Atona and Gaspardhuy [2], industries that release more closely to consumers are more likely to participate in voluntary pollution prevention efforts. We proxy this consumer contact with advertising intensity (advertising expenditures/sales).⁷

R&D intensive industries and firms may also find participation more profitable. The EPA has often imposed a uniform best available control technology (BACT) rule in environmental regulation. Firms have an incentive to develop new technologies that can be then be set as the BACT standard, as long as they believe that their technology will not easily be emulated. Firms engaged intensively in R&D activities may therefore participate in the program to influence EPA standards. Even if these technologies become commercially available and are imitated at no cost by the imitator (which is typically assumed by the EPA), other firms cannot readily replicate the leader's R&D efforts. To fully replicate a reported innovation the following firms face a learning cost. Also, even in the absence of patents, the innovating firm gains from the "lags in imitation." Furthermore, even

⁶The Responsible Care program was launched in 1981 by the Chemical Industry to overcome the adverse public image of this industry. All members of the Chemical Manufacturers' Association are committed to join the program. The program lists six performance called codes of management practice. Each of these codes addresses an important public concern, such as a pollution prevention code, product accountability code, and community awareness and emergency response code. The pollution prevention code was adopted in 1984 and uses the TPI data to measure performance. The program goal was to have every manufacturer in the 33/39 program. Our results indicate that the chemical industry is more likely to participate in the 33/39 program, probably because of the Responsible Care program. While the Responsible Care program is an initiative of the industry, the 33/39 program is an initiative of the EPA.

⁷Informants also are advertising expenditures by firm years (imperfect, requiring us to use firm information used industry advertising expenditures).

The pricing set of CFCs by the Montreal Protocol was due to intensive lobbying efforts, particularly enough by the main producers—Oer, Du Pont, and ECI. Having lowered a substantial R&D effort in development of substitutes they wanted to ensure their competitors advantage by forcing the ban for the industry [3].

without any change in standards, R & D offers a way to reduce emissions and thus lower the cost of complying with existing standards.

As discussed in the Introduction, the market structure of the industry may also be an important determinant of the level of environmental clean-up and program participation. On the one hand, in a competitive industry firms have a greater incentive to differentiate products in terms of environmental quality. This implies that program participation is more likely in unconcentrated industries. However, on the other hand, in unconcentrated industries it is difficult to pass overcomparable costs on to consumers unless they are considered that the products are differentiated. This suggests that one might expect less participation in competitive industries.

Within an industry, a variety of other factors may explain differences in environmental performance and program participation. Large firms may have a greater ability to influence the setting of tighter standards than smaller firms. Furthermore, if firms benefit from consumer goodwill when participating in the program, large firms' greater demand increases the absolute level of this benefit. These factors suggest that large firms are more likely to participate in the program.

Firms' releases and transfers of the 33/50 chemicals are also likely to affect their participation decision. Firms that employ large amounts of the 33/50 chemicals have the greatest aggregate reduction potential and may therefore benefit more from consumer goodwill generated through voluntary reductions. This benefit stems from making the release data public under the provisions of the EPCRA. Firms higher up on the toxic pollutants list suffer from adverse publicity. The larger the number of chemical categories emitted by the firm the greater is the opportunity and flexibility for the firm to develop substitutes in other areas. On the other hand, firms that use a large amount of 33/50 chemicals (relative to other inputs) may rely most heavily on those specific chemicals and have the highest costs of switching to alternative compounds. Higher aggregate releases as well as the larger number of emitted chemical categories should increase program participation because of benefits from the public reporting of their reduction. However, greater release intensity (releases/value) may decrease the likelihood of participation if this release increases the costs that the firm will incur from switching to alternative chemicals and production processes.

The financial health and profitability of firms may also affect decisions to make voluntary investments in toxic reductions if capital markets are imperfect. Increased earnings provide opportunities for firms to invest in pollution prevention. Higher debt obligations may introduce a bias among firms to concentrate on short-term investments. Pollution prevention efforts entail a longer term commitment and are therefore less likely to be a priority for firms with risky financing.

4. DESCRIPTION OF THE DATA

The research employs three main data sources. The Toxics Release Inventory provided environmental data. The EPA's Human Health and Ecotoxicity database was used to assign toxicities to the different chemicals. Standard & Poor's Compustat database provided financial data.

4.1. The Toxic Release Inventory

The EPCRA (also known as Title III of the Superfund Amendments and Reauthorization Act (1986)) made it mandatory for manufacturing establishments (Standard Industrial Classification (SIC) 20-39) to report the releases and transfers of 320 toxic chemicals. The act requires facilities which manufacture or process more than 25,000 pounds or use more than 10,000 pounds of any of the reportable chemicals to submit a TRI report [17]. The data provide information on the releases from the air, land (on-site land, underground injection wells, and off-site transfer), and water (surface and publicly owned treatment works).

In addition to the environmental data, the establishment reports its location, primary SIC code, parent company, and the DUNS number; see Table II for a summary. The DUNS number is a unique nine-digit identifier assigned by Dun and Bradstreet (a financial services) to each parent company. This number (along with the parent company name) is used to match the TRI data to the financial records of the company from the Compustat database described below. The 33/50 chemicals are a subset of the TRI chemicals. This study considers the seven two-digit industries that have the largest releases and transfers of these chemicals: chemicals (28), petroleum refining (29), rubber and plastics (30), primary metals (33), fabricated metals (34), electrical equipment (36), and transportation (37). We included facility reports with multiple (two-digit) SIC codes since we could not allocate the releases to a specific industry. We employed release data for 1990, the final full year before EPA announced the program. Each record provides the total releases and transfers of a particular chemical for each establishment (SUMO, irrespective of the medium of disposal).

A limitation of the TRI data set is that it is self-reported and therefore there exists an incentive to under-report the releases. There may also exist an incentive to over-report if firms expect to be rewarded for improvements relative to a baseline emissions level. Lower environmental audits can substantially reduce these incentives. Due to the implicit nature of the data set, it is subject to caveats as new concepts and techniques are developed. It is, however, a remarkable attempt to compile environmental data.

TABLE II
Summary of the Release Toxic Release Inventory Variables

Variable	Definition
Parent Company	Company that owns or operates the establishment
DUNS	A nine-digit number assigned by Dun & Bradstreet to an establishment
Chemical name	See Table I, column 1
CAS	Unique identifying number assigned to each chemical by the Chemical Abstracts Service
SUMO	Releases and transfers of the chemical in all media—air (from stacks and fugitive emissions)—land (on-site land, underground injection wells and off-site transfer)—water (surface water and publicly owned treatment works)

4.2. Human Health and Economic Distress

Facilities report the release data individually for all 17 of the 33/50 chemical categories and these have different toxicities. To obtain one aggregate figure for the total release of 33/50 chemicals by each parent company, it is necessary to account for these different toxicities.

The EPA's Human Health and Ecotoxicity Database (HHED) assigns indices of toxicological and carcinogenic potency to the chemicals [20]. We use the reportable quantity (RQ) toxicological index that is designed to guide reporting of accidental releases under the Comprehensive Environmental Response Compensation and Liability Act. The threshold planning quantity (TPQ) is another toxicological potency index that has been developed to meet the emergency response planning requirements of the Superfund Amendments and Reauthorization Act (SARA). The differences in criteria suggest that rankings of toxicities would differ according to choice of index. The RQ criterion assigns a rank of 1 to the most toxic chemical and a rank of 3 to the least toxic. We use weights derived from reversing the ranking. The most toxic chemical is assigned a weight of 3, whereas the least toxic chemical has a weight of 1. Through the RQ criterion provides a ranking for most of the 33/50 chemicals, for those chemicals not listed we assign appropriate rankings based on their similarity to the chemical composition of the listed chemicals. We compare aggregate releases based on a weighted sum of each chemical's releases using these linear weights.⁹

4.3. Company Database

We obtained the firm-level and industry-level financial data from Standard & Poor's COMPUSTAT for 1996 and preceding years. This database provides information on all publicly traded firms that file 10-K forms with the Securities and Exchange Commission. Table III provides a list of selected variables used in this analysis. Those financial records were merged to the TRI data by the DUNS number and company name. A total of 330 firms survived this merge, although only 302 firms provide complete data. The estimates are therefore based on a sample of large, publicly traded firms in the seven two-digit SIC codes with the greatest releases and transfers of the 33/50 chemicals. There are limitations of using two-digit SIC codes to group firms into different industries. The decision to participate in the program is made at the corporate level, so each firm contributes exactly one observation to this cross-sectional sample. However, companies have multiple production facilities and SIC codes. The primary SIC code reported on the COMPUSTAT indicates the most important industry for each firm. This approach suffers from the drawbacks of any standard singular classification scheme [1].

⁹Results are unchanged when weighting all chemicals equally, by an earlier analysis, Muris *et al.* [10] used similar linear weights to compare national petroleum refinery rankings. Since the weights were derived from an ordinal ranking, they contained a maximum but using proportional weights. While some of the ordinal rankings changed, they found a significantly high correlation between the rankings, suggesting that either the weights may be used. Our qualitative results are also insensitive to the weighting scheme.

TABLE II
Summary of the Composite and Composite Economic Variables

Variable	Definition/Composite
Company name	Firm that files the 10-K form with the Securities and Exchange Commission
Primary SIC code	Primary standard industrial classification, advertising the firm's most important production activity
Net income (NA... 80)	Earnings of the firm for the different years (Income before extraordinary items)
Total assets (AS... 10)	Assets of the firm for the different years
Average of return on assets (RA... 50)	(Net income (NI) ÷ Total assets (TA) × 100)
(PROFIT)	In thousands
Employees (EMP17)	(Outstanding debt (OD) ÷ net assets (NA) × 100)
Debt to asset ratio (DTARATIO)	(Debt of company ÷ Total assets) × 100
Market share of company (S... industry)	(Sales of company ÷ Total sales) × 100
Herdability index for industry (HERD)	Sum of squares of market shares of all firms in industry (based on primary SIC code)
Advertising intensity (AD INT)	Industry expenditures on advertising / Industry sales
Research and development intensity (RD INT)	Industry expenditures on R & D / Industry sales

6.4. Variable Construction

The dependent variable in this model is the 10/30 program participation decision, as of February 1992—1 year after the EPA officially announced the program. The financial and environmental variables can clearly depend on the participation decision, which makes the explanatory variables endogenous. To avoid this econometric problem we use explanatory variables from the year prior to the introduction of the program. The EPA announced the program in February 1991, so all the financial and environmental data used in the regressions are from 1990. EPA measure program impacts relative to 1988 emission levels, so even if firms anticipated the program during 1990 they could not benefit from increasing emissions during that year.

Industry variables such as R & D intensity (RD INT) and advertising intensity (AD INT) are the amount of dollars spent in these activities divided by total industry sales. The Composite database provides these data for certain selected four-digit SIC codes, which we aggregated to the two-digit level. We computed a two-digit Herfindahl index (HERE) to measure industry concentration using the carbon Composite database rather than the restricted sample of companies matched with the TRJ data. The number of employees of the firm (EMP17) is taken as a measure of size. This was highly correlated with other indicators of size such as sales and gross assets. Profitability is measured by taking a short-term (3-year) average of return on assets (PROFIT). The profitability measure is for the period 1985–1990. We used a firm's debt to asset ratio (DTARATIO) as an indicator of in debt obligations and financial structure.

The analysis uses the sum of all releases and transfers and does not distinguish between the different media (land, water, or air). The 10/30 program stresses a multi-media approach and grants the firms the flexibility to achieve overall reduction targets in the most cost effective way irrespective of the medium.

Approximately 70% of the 33/50 releases are in the form of emissions into the air. The analysis employs three release measures: The aggregate sum of releases weighted by the human toxicity factors described in Section 4.2 above (WTREL), the number of different categories of the 33/50 chemicals released by the firm (NOCAT), and the aggregate weighted releases divided by firm sales (REL INT). REL INT may be the best measure of the importance of the 33/50 chemicals for the firm's overall production processes, while WTREL and NOCAT capture potential gains from program participation. NOCAT also indicates the firm's available opportunities for developing substitute products for at least one of the 17 categories. Participation in the program may involve a commitment to the development of substitutes for any one or more of the chemical categories. The larger the number of categories emitted, the greater is the flexibility for the firm to participate.

Before presenting the results we should mention one additional factor that may affect the likelihood of participation as of February 1992. As discussed in Section 2, the EPA invited firms to participate in two phases—about 553 initial large firms in February 1991 and an additional 3088 firms in July 1991. The participation rate of the initial firms invited is higher, probably due in part to their 5-month "head start." Our initial interest was to include an indicator variable as a regressor that was equal to one if the firm was in this initial invited group. However, the EPA chose to include the company in this initial group based in part on its releases, size, and other factors. This variable is therefore endogenous, which would bias the estimates if it is correlated with the error term. Consequently, we tried instrumenting for this variable using factors mentioned by the EPA (16) that characterized this initial group, such as total 33/50 releases. Unfortunately, all instruments performed poorly and were unable to explain why firms were on this initial list of invites. This led us to abandon this approach. Nevertheless, the variables that EPA mentions for choosing this initial group of firms are all in the models reported below, so our results can be interpreted as reduced-form estimates that suppress the inherent role that the head start for some firms have on this participation probability.¹⁶

Table IV provides summary statistics for the explanatory variables, in aggregate and separately for the program participants and non-participants. About 30% of the firms in the sample are participants. The firms volunteering to reduce releases tend to be (1) much larger (EMPLT); (2) emitting more 33/50 chemicals (WTREL and NOCAT); (3) less intensively releasing 33/50 chemicals (REL INT); and (4) more profitable. Participants also appear to come from less concentrated industries (HERF). The multivariate regressions below determine the marginal impact of these different factors on program participation.

5. ECONOMETRIC MODELS AND RESULTS

A discrete decision summarized by the inequalities in (1) above represent the firm's decision to participate in the program and voluntarily reduce releases.

¹⁶Although it is endogenous, we did include an indicator variable for the initial group of firms in an unreported regression to check the sensitivity of the results. This qualitative result are unchanged but the estimates of model parameters (mainly EMPLT and WTREL) are what they remain statistically significant.

TABLE IV
Summary Statistics for Explanatory Variables

Variable	Enzyme sample (N = 302)	Nonparticipating FACT = 0 (N = 286)	Participating FACT = 1 (N = 16)
SMTLS			
Median	5	2997	26154
Mean	18.707	7226	47395
Standard deviation	56.696	13236	94423
WTREZL			
Median	136289	145986	491947
Mean	197352	160988	203127
Standard deviation	1500106	350718	4264899
XELINT			
Median	21552	27272	21218
Mean	68279	74489	43118
Standard deviation	149212	176572	79135
NOCAT			
Median	6	3	7
Mean	4.5	3.6	6.5
Standard deviation	3.3	2.3	4.7
FRACPTT			
Median	6.72	4.17	5.55
Mean	4.89	6.71	6.43
Standard deviation	5.56	5.27	5.93
DTARATE			
Median	2515	2082	2136
Mean	2482	3128	2483
Standard deviation	2097	2642	2139
HEEF			
Median	39221	65925	36321
Mean	54771	56425	60135
Standard deviation	22184	29847	20235
RD INT			
Median	0.0183	0.0872	0.0229
Mean	0.0257	0.0277	0.0318
Standard deviation	0.0264	0.0221	0.0276
AD INT			
Median	0.0023	0.0002	0.0012
Mean	0.0086	0.0091	0.0136
Standard deviation	0.0208	0.0089	0.0239

Note: See Table IX for definitions of the dependent variables. WTREZL is the relative and transfers of each chemical weighted linearly by its toxicity class. REL_INT is WTREZL/total sales; NOCAT is the number of 30/50 chemical categories released by the firm.

Under the assumption that the error term ϵ_i is governed by the normal distribution, the bivariate probit model provides consistent estimates. Although the dependent variable is dichotomous, the probit model estimates the probability of participation based on the explanatory variables. All equations were estimated in LIMDEP using the iterative maximum likelihood method.

Table V presents the results for the 302 firms that provide complete data. Model A includes industry fixed effects through separate intercepts for each of the seven

TABLE V
Estimation Results from Probit Participation Models (Dependent Variable: 1/50 Program Participation Decision)

Variable	Model A	Model B	Model C
EMPLT	0.0821*** (0.0157)	0.0720** (0.0267)	0.1269** (0.0320)
EMPLT50	-0.00018** (0.00009)	-0.000151** (0.00008)	-0.00028** (0.00010)
PROFIT	0.0043 (0.0177)	0.0226 (0.0174)	0.1228* (0.0364)
DIARATIO	-0.00371 (0.00433)	-0.00937 (0.00417)	-0.0006 (0.00413)
WTREL	0.00249** (0.00123)	0.000194 (0.00019)	0.000137** (0.00010)
NOCAT	0.0081 (0.0143)	0.0117 (0.0143)	0.0038 (0.0143)
REL INT	-0.00280 (0.00280)	-0.00051 (0.00281)	-0.00076 (0.00283)
HELP	-0.00245** (0.00109)	-0.00245** (0.00109)	-0.00115** (0.00110)
ED INT	0.033 (0.044)	0.033 (0.044)	0.033 (0.044)
AD INT	-2.394 (1.338)	-2.394 (1.338)	-2.394 (1.340)
Intercept	-0.671 (0.144)	-0.671 (0.144)	-0.671** (0.140)
Industry fixed effects	Yes	No	No
Log-likelihood	-128.94	-120.00	-111.82
Restricted log-likelihood	-166.47	-166.13	-161.67
N	392	393	392
Percentage correctly classified	83.77	83.38	83.43

Note: Standard errors in parentheses.
* Statistically different from zero at the 10% level.
** Statistically different from zero at the 5% level (all two-tailed tests).

two-digit SIC codes. The intercepts provide baseline probabilities of program participation for each industry. Model B replaces the seven separate industry intercepts with a single, common intercept and adds three industry-specific variables: (1) industry R & D intensity (RD INT), (2) industry advertising intensity (AD INT), and (3) the Herfindahl index (HERF). Advertising and R & D expenditures were adjusted for several industries so model C reestimates this equation without these (industry) variables.

Model A correctly classifies nearly 84% of the participation decisions. Although the table does not show the industry intercepts to conserve space, these fixed effects are all statistically significant at the 5% level. This indicates that the participation probabilities are significantly different across industries. A likelihood ratio test easily rejects the null hypothesis of no industry differences. Chemical firms (SIC 28) are most likely to participate in the program, and rubber and plastics firms (SIC 30) are least likely. In all models large firms (EMPLT) are more likely to enroll in the program; however, as size increases the likelihood of firm participation increases at a decreasing rate because of the negative sign on

employee-owned (EMPLETSO).¹¹ Profitability has the anticipated (positive) sign but is insignificant in models A and B. Firms with more risky financing (i.e., a higher debt/asset ratio (DTARATIO)) may be less inclined to participate in the program, but this effect is not statistically significant. Taken together, the estimates on PROFIT and DTARATIO provide some weak evidence that capital markets constraint some firms from obtaining environmental overcompliance.

Firms with higher aggregate returns (WTREI) are clearly more likely to participate. The larger the number of categories of chemicals released (NOCAT) the higher the participation probability, although this variable is significant only in model C.¹² Release intensity (REI, INT) has a negative sign but is never significant. Of the three industry variables in model B, only HERF is significant. The negative sign on HERF indicates that participation likelihood is greater for less concentrated (i.e., low Herfindahl) industries. Advertising and R & D intensity do not significantly affect participation.

Table VI provides a probability interpretation of the probit coefficients for the significant variables. It indicates that firm size, chemical releases, and industry concentration all have economic significance because they change participation probabilities substantially. Models B and C establish that the industrial market structure is an important determinant of participation in the program. This is consistent with the earlier theoretical work that predicts that monopolization increases firm incentives to differentiate their products in terms of environmental quality. Model C also indicates that PROFIT, as well as the number of chemical categories (NOCAT) increases somewhat the likelihood of participation in the program, although their impact is smaller than that of size, releases, and concentration.¹³

The important impact of aggregate return is easiest to interpret. Firms high on the trade-off curve are most likely to join the program in order to reduce releases and limit their associated stigma. This is good news for the program because the most polluting firms find it in their interest to take voluntary action. The significant concentration result also fits into an intuitive theoretical explanation that competitive firms also compete in terms of environmental quality. The very important size effect (EMPLIT) is more difficult to interpret. As already discussed, large firms serve a larger demand and therefore receive a more widespread benefit to participation. Furthermore, the industry-level R & D intensity is only a proxy for the more important (firm-specific) R & D effort, so the size variable may be picking up part of this R & D intensity variation. Improved environmental performance may also generate employee goodwill, and if so firms with a large number of employees would receive a greater benefit from overcompliance. Finally, larger firms have more shareholders, and shareholder pressure may be related to improved environmental performance.¹⁴ Our interpretation is

¹¹The estimated participation probability never falls with increased employment over the employment range of the sample.

¹²WTREI and NOCAT have an estimated correlation coefficient of 0.33, which may have increased their estimated standard errors.

¹³To check the robustness of these results, we estimated similar equations on subsets of firms exhibiting specific chemical releases were commonly unchanged, for example, when estimating models A, B, and C using releases and release intensity for dichotomization on the subset of 34 firms receiving dichotomizable releases. Size, releases, and industry concentration remain the most important variables.

¹⁴We had hoped to include the number of shareholders in an explanatory variable, but it was missing from most Compustat records.

VOLUNTARY ENVIRONMENTAL REGULATION

TABLE VI
Probability Decomposition of Significant Coefficients

Variable	Model A	Model B	Model C
HAP/LT	0.5003	0.4557	0.3232
PROFIT			0.007
WTRBL	0.2287	0.1742	0.2654
MOCKT			0.0648
HERF		-0.0841	-0.0718

Note: Table entry indicates the change in estimated probability attributable when increasing the indicated variable from the mean to a level one standard deviation above the mean. For example, at Model A, increasing a firm's employment from the sample mean to one standard deviation above the sample mean (holding all other explanatory variables constant) if their average market increases the estimated participation probability by nearly 51%.

that size is exposing them and maybe other unobserved factors that increase the benefits from voluntary overcompliance.

6. CONCLUSION

This paper reports a modest initial evaluation of the EPA's new program to encourage firms to voluntarily reduce toxic emissions and develop cleaner technologies. The program is part of a broader Pollution Prevention Act passed in 1990. We believe that this voluntary approach can potentially augment existing command and control regulation, especially when programs of the program can be tracked through publicly available information that introduces accountability and rewards overcompliance. For example, the research reveals that the companies emitting the largest amounts of toxic releases are most likely to take part in this program. Our interpretation is that this suggests that such voluntary programs may achieve substantial reductions because they target those firms with the greatest reduction potential. The result that firms with high toxic releases are more likely to participate is also consistent with an alternative interpretation that the public announcement of the TRI data (and resulting bad publicity) induced firms to reduce their toxic emissions— and that 33/79 program participation was only incidental. The results also indicate that participation incentives are greatest for large firms in unconstrained industries. Regulations implementing these innovative voluntary programs can use these results to increase their effectiveness. For example, both interpretations of the results suggest that public awareness plays an important role and that regulators can increase participation by encouraging a competition in environmental quality. EPA should provide substantial public recognition and awards to firms achieving actual release reductions. We believe that greater public awareness is key to achieving the program goals.

A drawback of this assessment is that it is based on anticipated reductions and planned targets by the firms so it is only a first step. The 1995 TRI data will become available in early 1997, at which point it will be possible to measure actual

emissions and release reductions that firms achieve as a result of participation in this voluntary pollution prevention program. The research focuses on seven two-digit industries and a small sample of companies for which complete environmental and financial records were available. A much larger data set from the U.S. Bureau of the Census' Longitudinal Research Database (LRD) can enrich this analysis, but we leave this for future research.

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Why Do Firms Volunteer to Exceed Environmental Regulations? Understanding Participation in EPA's 33/50 Program

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ABSTRACT. This paper examines participation in EPA's 33/50 program to assess the potential for voluntary environmental regulation to achieve improvements in environmental performance. The program is used to reduce the sulfur and nitrogen of 17 toxic chemicals by 30 percent between 1980 and 1985. The study indicates that the program has strong potential to meet this goal. The results also identify environmental performance differences that are greater than are expected. This suggests that public recognition is key to improving the success of voluntary environmental regulation. (JEL: O25, L5)

1. INTRODUCTION

Until recently policymakers have relied on traditional instruments of environmental protection. The most common of these have been command and control regulation and taxes on pollution. More recently, environmental protection has been obtained increasingly through legal recourse, relying on lawsuits to settle environmental disputes. Economists have advocated a credible policy approach to environmental regulation, a so-called regulatory market. However, policymakers have adopted another approach with little theoretical or empirical analysis by economists: voluntary environmental regulation. In this paper we examine participation decisions in one such voluntary program and conclude that this incentive program may have the potential to become an effective means of achieving environmental protection. The results suggest that firms have an incentive to compete in environmental quality, and that regulators exploit this incentive to improve environmental performance—particularly in industries that have close contact with final consumers.

Voluntary programs would only be successful if economic agents receive some benefit for their resources devoted to improved environmental performance. Our thesis is that firms perceive that consumers care about the environment and are therefore willing to pay a slightly higher price for a product or process that generates less environmental harm. Casual observations of popular media suggests that firms increasingly wish to project an image of being environmentally conscious. Survey evidence shows that consumers are willing to pay a premium for more environmentally benign products (Cairncross 1972; Gallup International Institute 1972). If consumer consciousness is the driving force, we hypothesize that firms that are closer to final consumers are more likely to participate in voluntary environmental programs. We proxy the degree of consumer contact with advertising expenditures, and find that such expenditures are positively related to the likelihood of participation in the voluntary program. We interpret this finding as support of this primary hypothesis.

The authors are with the Owen Graduate School of Management, Vanderbilt University and the Department of Economics, University of Southern California, respectively. We thank Miles Hamer and Robert Hamer of the EPA for assistance with the TSI and AIR compliance data. The first author is a Gilbert Walter Fellow at Harvard Business School. The second author is a National Endowment for the Humanities Postdoctoral Fellow at the University of California, San Diego. We thank participants at the 1985 Environmental Economics Conference at the University of Illinois, the University of Southern California, and Vanderbilt University. The usual caveat applies.

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The U.S. Environmental Protective Agency (EPA) is increasingly relying on voluntary regulation.¹ Currently, the EPA has at least thirteen voluntary programs, such as the 33/50 program, the Green Lights program, the Energy Star Computer program, and the Golden Thread Super Efficient Refrigerator program. See Deaton (1979) for a review of the EPA's different voluntary programs. Recently, the Clinton administration announced that it would rely on voluntary measures to reduce the emission of greenhouse gases. A voluntary approach avoids the costly process of legislation and the substantial costs of monitoring and enforcement. It is also cost effective for those making pollution reductions. The flexibility associated with voluntary measures allows firms to make the most cost-effective emission reductions. However, by definition regulations cannot enforce a voluntary program, which immediately raises several concerns. Why would firms want to take part in voluntary measures especially when they are costly? What are the incentives for volunteers to take part in such programs when there are no penalties if they fail to meet their commitments?

Economics has traditionally focused on the cost side of environmental regulations and has for the most part disregarded the benefits that a firm might derive from a better environmental record. Increasingly, however, pressure groups are playing a larger role in influencing corporate environmental performance. These pressure groups include consumers, cognate organizations, employees, and the media. Results indicate that consumer reports as important pressure groups, and they first have exceeded the environmental conditions prescribed by law and then added additional measures to inform areas of their superior environmental performance. Taking part in a voluntary pollution prevention program is one way for a firm to signal that it is environmentally conscious. Public recognition arising from participation may be a strong incentive for firms to adopt technologies and processes. Auer and Godehy (1985) formalize this notion by explicitly including consumer demand for

environmental quality. Firms in their model differentiate their products by competing in environmental quality, an idea feature of environmental quality, as this feature of preferences combines with consumers' incentives to induce some firms to over-comply with uniform environmental standards.

Of course, consumer preferences are not the only possible explanation for voluntary over-compliance. Over-compliance can be a rational response to the anticipation of stricter regulations in the future. However, Baumol and Oates (1988) show that with increasing marginal costs of cleaning and a uniform percentage reduction rule, firms have incentives to abate cleanup. Costly abatement may paradoxically increase on emissions may paradoxically increase profits for a regulated industry with restricted entry (Buchanan and Tullock 1975; Maloney and McOmisch 1982). Thus, another explanation is that firms over-comply with environmental regulations to guide regulatory authorities to set higher standards for the industry, thereby raising the cost of compliance for other firms and reducing competition (Salop and Scheffman 1982; Barrett 1991). According to Fri (1982), firms over-comply to influence regulatory policy. For example, firms may voluntarily reduce their use of some of the 33/50 program chemicals to influence new performance standards for these chemicals.

An alternative view is that most firms do not benefit from increased regulation, so some volunteer to exceed existing environmental standards so as to forestall additional formal regulation (Muscardi, Lyon, and Hatcher 1995). Moreover, some firms might perceive voluntary programs as benchmarks of more stringent mandatory regulations. The fear of this voluntary program becoming enforceable might explain why some

¹ While the voluntary approach is new for the EPA, voluntary programs have been adopted by other regulatory agencies such as the Consumer Product Safety Commission (CPSC). The CPSC voluntary standards are quite different from EPA voluntary programs. For example, CPSC standards are established at the industry level rather than the firm level. As a result, the CPSC voluntary standards are similar to a standard set by the Responsible Care program promoted by the Chemical Manufacturers Association.

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firms do not participate in the program, even though they have made reductions in the 33/50 chemicals. Finally, overcompliance may also result from energy conservation in pollution abatement, which could result in substantial cost savings in the long run.

This paper seeks to answer a series of questions that are crucial to an evaluation of this new voluntary approach to environmental regulation. Are firms simply trying to benefit from private regulations that pass with participation in a program that is not enforceable, particularly since public data on actual performance is unavailable for several years? Do firms that participate in voluntary programs also comply with mandatory environmental regulations? What type of firms try to benefit from positive recognition?

The research focuses on one such voluntary program administered by the EPA. The 33/50 program is a major initiative to reduce releases and transfers of 17 high-priority toxic chemicals by one-half between 1985 and 1995. Section II presents an overview of this program. We also briefly examine the empirical interaction between the 33/50 program and the EPA's Green Light program, which is an independent voluntary program that seeks to incorporate the use of adoption of energy-efficient lighting. Section III provides a theoretical framework for the empirical model, and discusses the methods. Section IV describes the data and Section V collects the results. We conclude in Section VI.

II. AN OVERVIEW OF THE 33/50 PROGRAM

The design of the 33/50 program has been influenced by the Pollution Prevention Act of 1990. The program takes its name from its goal—to reduce releases and transfers of key toxic chemicals by 33 percent in 1992 and by 50 percent in 1995, relative to baseline 1988 levels. The program encourages firms to develop less toxic wastes, reformulate products, and redesign production processes to achieve release reduction rather than resort to end-

of-the-pipe cleanup. It focuses on 17 of the 128 chemicals firms report in the Toxic Release Inventory (TRI), based on their toxicity, the large volume in which they are produced by industry, and the availability of pollution prevention opportunities. Table 1 provides a list of the chemicals. In 1988, these 17 chemicals represented about one-quarter of the total U.S. toxic releases and transfers (measured by weight) (EPA 1991). The program requires a multi-media approach and integrates all media to reduce releases into the air, land, and water. However, about 70 percent of the 33/50 chemical releases are into the air, so it is primarily an air toxics program. Although the 33/50 chemicals are used to some extent in most manufacturing industries, over one-half of the 33/50 chemical releases and transfers in 1988 were produced in five industries: Chemicals (Standard Industrial Classification

TABLE 1
LIST OF 33/50 CHEMICAL CATEGORIES AND
CORRESPONDING TOXIC RELEASE
INVENTORY CATEGORIES

TRI Chemical Name	33/50 Chemical Name
Chloroform	Chloroform and Compounds
Chlorobenzene	Chlorobenzene and Compounds
Chloroethane	Chloroethane and Compounds
Lead	Lead and Compounds
Mercury Compounds	Mercury and Compounds
Methyl Chloride	Methyl Chloride Compounds
Methyl Ethyl Ketone	Methyl Ethyl Ketone
Methyl Isobutyl Ketone	Methyl Isobutyl Ketone
Toluene	Toluene
Xylene (total isomers)	Xylene
m-Xylene	m-Xylene
p-Xylene	p-Xylene
Carbon Tetrachloride	Carbon Tetrachloride
Chloroform	Chloroform
Dichloromethane	Dichloromethane (ethylene chloride)
Tetrahydrofuran	Tetrahydrofuran
1,1,1-Trichloroethane	1,1,1-Trichloroethane
Trichloroethylene	Trichloroethylene
Quartz Compounds	Quartz Compounds
Hydrogen Chloride	Oxides

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tial SIC 26, Transportation (SIC 37, Primary Metals (SIC 33), Fabricated Metals (SIC 34), and Rubber/Plastic Products (SIC 30).

Participation in the 33/50 program is purely voluntary. Although the program's overall goal is to reduce releases and transfers by 50 percent, individual firms are not required to meet any quantitative goal. A company's decision to participate does not change its responsibilities for complying with all other laws and EPA claims that it will not give preferential treatment of any kind to the participants in the form of relaxed regulatory oversight or enforcement of other EPA regulations. The voluntary nature also suggests that commitments to achieve reductions are not enforceable by law and firms can renege on their commitments. Nevertheless, many of the companies that have decided to participate have achieved double-digit reductions and targets and have often indicated alternative technologies, products, and estimated costs.

Our results are consistent with the view that firms have the incentive to volunteer for this program because they are sensitive to consumer perceptions of their environmental record. We should point out, however, that firms also have an incentive to reduce program chemicals in response to mandatory regulations and the Montreal Protocol, as well as for production cost savings. Two of the 33/50 chemicals (Carbon Tetrachloride and 1,1,1-Trichloroethane) are also ozone depleters, and therefore they fall under the regulations arising from Montreal Protocol. Seventy percent of the total releases of ozone depleting chemicals in the TRI are due to 1,1,1-Trichloroethane. The Montreal Protocol calls for a phaseout of compounds like these chemicals, which provides an additional incentive for firms to reduce their present use. The Clean Air Act Amendments of 1990 require that the production of CFCs and halogens be phased out by the year 2000, and new findings by NASA have led to a ban on CFCs in ozone depleters by 1995. The 33/50 chemicals Carbon Tetrachloride and 1,1,1-Trichloroethane are classified as Class I depleters, as is dichlorodibromomethane, which is similar

to the 33/50 chemical dichloromethane (EPA 1994b).

An additional motivation for making reductions in the 33/50 chemicals is the cost savings that may result from substituting economic alternatives for these chemicals in some production processes. Many of the 33/50 chemicals are solvents. In some cases firms have substituted alcohol and water for these toxic solvents, resulting in substantial cost savings. These savings include disposal costs as well as the initial purchase cost of the chemical solvents.

In addition to these cost-savings, the incentives for program participation are public recognition by EPA and special awards for innovators and firms with outstanding pollution prevention achievements. The program's multi-media approach gives firms the flexibility to make reductions in any medium. Firms also benefit from the Pollution Prevention Information Exchange System (PIES)—through which they can obtain technological information—although non-participating firms can also use this system. EPA also provides assistance to firms as part of the program by conducting regional pollution prevention workshops. The regional 33/50 workshops concentrate on public outreach as well as demonstrate successful instances of source reductions.

The EPA initiated the program in February 1991, when it invited 555 companies with substantial chemical releases to participate. EPA later invited an additional 5,000 firms in July 1991, and a third group of about 2,500 firms in July 1992. The first group of 555 companies included primarily large firms that reported the highest total releases of 33/50 chemicals, representing more than three-quarters of the total releases and transfers of 33/50 chemicals in 1988. The 1988 data were the most recent Toxic Release Inventory (TRI) data available to EPA when prioritizing an initial invitation list. The second group consisted of all other firms reporting 33/50 chemical releases in 1988. The third group did not report releases of any 33/50 chemicals in the 1988 TRI, but they did report 33/50 releases after 1988. Once their use of 33/50 chemicals became known, EPA created

them an invitation to participate. As of March 1994, the EPA has invited over 8,000 companies, and nearly 1,200 have communicated to participate.

According to the TRI data reported in EPA (1994b), between 1988 (the 33/50 program inception year) and 1992, the 8,000 firms invited to join the 33/50 program reduced their total releases and transfers of the selected 33/50 program chemicals by 40.3 percent. Meanwhile, these same 8,000 firms reduced their total releases and transfers of the roughly 300 TRI chemicals not on the 33/50 list by 33.6 percent. This reduction in toxic releases and transfers may have occurred for a variety of reasons, such as a decline in U.S. manufacturing. A potentially important cause of this reduction is the public release of the TRI. Soon after the first release of the TRI in 1989, several citizen groups placed a full-page advertisement in *The New York Times* highlighting the top ten corporate, land, water, and air pollutants.⁶ Several of these firms approached the EPA administrator and pledged to improve their environmental performance, which in effect began this voluntary program (see Avora and Cason 1994 for further details). The TRI data also indicate a possible changing pattern of toxic releases for EPA invited firms. For example, in the 1992 TRI data reveal that in this at full year of the program the reduction rates of the program chemicals are lower than the rate reported for nonprogram chemicals (EPA 1994b). This suggests that a 33/50 program may have been successful in prioritizing reductions of those particular toxic chemicals.⁷

The recent release of the 1993 TRI data again confirmed progress toward achievement of the 33/50 program (EPA 1995). Between 1992 and 1993 releases and transfers of 33/50 chemicals decreased by 11 percent. Relative to the 1988 baseline level, total reductions of program chemicals have reached almost 46 percent. The 1993 TRI data also suggest that participating firms are showing real reductions in program chemicals compared to nonparticipating firms. Between 1992 and 1993, participating firms reduced releases and transfers of program

chemicals by 20 percent, while the reduction rate for nonparticipating firms was less than 1 percent.

The EPA attributes the impressive reductions in selected chemicals during the first years of the program at least partially to its voluntary program. However, as noted in a recent U.S. General Accounting Office report (GAO 1994), many of these reductions occurred prior to the program's initiation. EPA will release the 1995 TRI in early 1997, at which time the overall success of the program can be assessed. The monitor of this paper studies the factors that lead firms to participate in order to provide insight into the incentives for improved voluntary environmental performance. We should emphasize that our goal is to understand firms' incentives to volunteer to comply with environmental regulations, and our use of the 33/50 program participation decision provides only a noisy measure of environmental compliance, since we cannot yet observe whether firms achieved their reduction goals. It would be valuable to evaluate the precision of this measure, for example by examining the reduction of 33/50 chemicals for participating firms. However, although we have data on participation decisions as of the spring of 1994, at the time of our analysis only the 1991 TRI data were available because of the more than two-year release lag for these data.

Like the present paper, in earlier work (Avora and Cason 1995) we examined participation in the 33/50 program. However, the earlier paper focused on the impact of

⁶The TRI data released in 1989 were collected for calendar year 1987, and there is a two-year delay between reporting and public release by EPA. EPA considers the 1987 data available, which is why the 1988 TRI is used in the program baseline. Throughout this paper, we refer to the TRI data by the year it was collected, not reported.

⁷The rates of reduction have varied for the different chemicals. For example, firms reduced releases of ethyl methacrylate (in cases reported) by almost 100% from 1988 to 1992. The reductions were less dramatic for releases of styrene and methyl methacrylate. Total releases of toxic chemicals (in cases reported) increased during the same period (EPA 1994b).

... as an invitation to participate. As of March 1994, the EPA has invited over 8,000 companies, and nearly 1,200 have consented to participate.

According to the TRI data reported in A (1990b), between 1988 (the 33/50 program baseline year) and 1992, the 8,000 companies that joined the 33/50 program reported their total releases and transfers of 231 program chemicals by

... reduced their total releases and transfers of the roughly 308 TRI chemicals not on the 33/50 list by 33.6 percent. This reduction in toxic releases and transfers may be due to a variety of reasons, such as changes in U.S. manufacturing. A particularly important cause of this reduction is the first release of the TRI in 1988, several years ago, which is highlighted in the New York Times (highlighting top ten companies land, water, and air pollution). Several of these firms up-

... the EPA administrator and signed to improve their environmental performance, which in effect began the voluntary program (see Aron and Cason 1994 for other details). The TRI data also indicate a changing pattern of toxic releases.

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The TRI data released in 1993 were collected for chemicals from 1987, and data for the year 1992 were collected for chemicals from 1988. The TRI data are available, which is why the 1993 TRI is used in the present analysis. Throughout this report, in order to be consistent with the TRI data by the year of data collection and reported.

The case of releases was used for the air toxic chemicals. For example, firms achieved releases of carbon tetrachloride (in mass emissions) by almost one-third from 1988 to 1992. The reductions were due to releases of releases and transfers (which is the total release of mass chemicals) that called for a 50 percent reduction in releases of these chemicals during the same period (EPA 1994).

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... tions financial variables on participation decisions, rather than the role of consumer contact and the program's interaction with their environmental regulations studied in the earlier work considered only the seven most publicly traded firms in the seven two-digit SIC industries with the greatest number of 13/50 chemicals, amounting to a sample size of about 300 firms. In contrast, the present study is based on the entire universe of 8,000 firms eligible to participate, and our main results are based on the set of 6,265 firms for which we have complete data. Our earlier paper found that firm size was the largest determinant of program participation, and that financial performance was highly irrelevant. We realize two of both of these earlier findings in constructing the more comprehensive analysis of the present study.

III. THEORETICAL FRAMEWORK AND HYPOTHESES

The empirical approach taken here is based on the simple proposition that firms participate in the 13/50 program if doing so increases expected profit. Although program participation may increase costs in the short-term, it could increase long-run (discounted) profits for a number of reasons, listed below. Above precisely, we denote expected profits for firm i as follows:

$$\pi_i = \pi_i(\text{participation}_i, Y_i) \quad (1)$$

where participation _{i} is an indicator variable set to 1 if firm i participates in the 13/50 program and 0 otherwise, and Y_i is a vector of firm characteristics that affect long-run profits, including, as well as other variables, firm choices such as capital and price. This notation combines these other choice variables with the exogenous firm characteristics and isolates the program participation choice to focus on the difference between profit from participation. During this notation, the differences in expected profit for the two discrete partici-

... also decisions determines firm i 's participation decision:

$$D_{\text{part}}(X_i) = \pi_i(1, X_i) - \pi_i(0, X_i) \quad (2)$$

where X_i is a new vector of firm characteristics and choices that affect the difference in expected profit from program participation. X_i is likely to have a smaller dimension than Y_i , because a number of characteristics probably do not affect D_{part} —for example, certain characteristics and choices from overseas operations. In earlier work that focused on the role of financial characteristics on firms' 13/50 participation decisions, contrary to prior expectations, Aizen and Osozo (1999) found that firms with higher profits or more risky financing were not more likely to participate. Therefore, these factors may also not belong in X_i .

The estimates reported below employ this profit difference to model the participation decision:

$$\text{Participation}_i = \begin{cases} 1 & \text{if } D_{\text{part}}(X_i) + \epsilon_i > 0 \\ 0 & \text{if } D_{\text{part}}(X_i) + \epsilon_i \leq 0 \end{cases} \quad (3)$$

We shall assume that the error term ϵ_i is distributed as an iid normal random variable, in which case the probit model provides consistent estimates for the participation equation. The remainder of this section discusses a number of explanatory firm characteristics in X_i that may affect the probability of participating in this type of voluntary environmental program.

The EPA believes that a major incentive for participation in the 13/50 program is public recognition, and the program's design emphasizes public reward to exploit this incentive. We operationalize this hypothesis by postulating that industries which are closer to final consumers are more likely to participate. We proxy this level of consumer contact by the level of advertising expenditures of that particular industry, correlated by industry sales. Firms in industries that produce primarily intermediate goods are less likely to advertise heavily, and are also

likely to be affected by consumer preference for environmental quality.⁶ It also seems plausible that the level of R&D intensity of an industry may influence the likelihood of a firm's participation in 33/50 programs. The program emphasizes pollution prevention, so firms have an incentive to develop production processes that reduce that employ less of the process to produce toxic chemicals. If more R&D activities exhibit economies of scale, firms with greater existing R&D resources may find it less costly (and therefore profitable) to allocate additional resources to environmental R&D. These economies could arise from substituting costs of R&D (e.g., setting up and running an R&D division), or in a probabilistic model of innovation in which firms that greater current R&D expenditures a greater likelihood of a successful invention when increasing marginal R&D outlays. We therefore postulate that firms with greater R&D expenditures (normalized by industry sales) use additional resources to pollution prevention research more efficiently and are more likely to participate in this program.

Another aspect of the relationship between concentration in an industry and the level of participation is environmental volatility. Firms in more concentrated industries can more easily pass on the costs to consumers. Hence, they are able to afford more voluntary participation. Moreover, the level of participation is likely to affect product and how deep the firm's pockets will respect to total liability judgments (fixed costs). Both of these factors that participation would be greater if firms that are more concentrated. On the other hand, recent theoretical work suggests that firms may use improved environmental performance to differentiate their products from rivals' products. Arms and Galbraith (1995) develop a model in which firms that are otherwise identical have an incentive to differentiate their products to differentiate quality. Greater environmental quality, greater homogeneity and lower industry

concentration leads to a greater level of competition, so a strategy to sustain long-run profits in their model is to increase product differentiation. If consumers value environmental quality, particularly in unconcentrated industries, firms can gain additional share by improving environmental performance. Accordingly, the incentives for voluntary overcompliance may be lower in concentrated industries. We summarize these initial primary hypotheses as follows:

- Hypothesis 1 (Consumer Contact):* Firms in industries with more contact with final consumers (proxied by unclassified advertising expenditures) are more likely to participate in the 33/50 program.
- Hypothesis 2 (Research and Development):* Firms in industries with greater normalized R&D expenditures are more likely to participate in the 33/50 program.
- Hypothesis 3 (Industry Concentration A):* Firms in concentrated industries are more likely to participate in the 33/50 program.
- Hypothesis 3B (Industry Concentration B):* Firms in unconcentrated industries are more likely to participate in the 33/50 program.

As discussed above, the Toxic Release Inventory was first made public in 1989. Many firms reacted to the disclosure by volunteering to make reductions in the releases of the TRI chemicals, and firms received 33/50 program recognition for release reductions relative to 1988 levels. The data show a strong relationship between the reductions made due to the public disclosure of

⁶ It would be preferable to use a more direct measure of consumer contact—such as the percentage of sales to final consumers—but unfortunately the data were not available for this study from the EPA and COMSTAT. It does include the information COMSTAT provides on the public disclosure files, which reports the total revenue due to product or the 17 chemicals. It would like to include an indicator of the number of toxic substances or environmental incidents in the firm's total range of products. See Section IV.B for a discussion of the data limitations that impede our use of industry instead of firm-specific advertising and R&D intensity.

the TRI with the industries due to the 33/50 program. If firms are more likely to participate when their toxic reductions occurred primarily before 1991, then they might be free-riding on the 33/50 program because they made the reductions in response to the disclosure requirements of the TRI or other factors. We summarize this as follows:

Hypothesis 4 (Free-Riding): Firms making reductions in 33/50 chemicals between 1988 and 1990 will free-ride on their earlier reductions and be more likely to participate in the 33/50 program, which was initiated in 1991.

If the data support this hypothesis then the EPA could weaken the program's impact if the free-riding behavior is not taken into account. Critics of the voluntary approach to environmental regulation could argue that firms with poor compliance records on mandatory environmental programs may participate in recognition, perhaps partly obscuring their failure to meet mandatory requirements. Alternatively, proponents of the voluntary approach could argue that firms that have a good record of environmental compliance with mandatory programs are also more likely to participate in voluntary programs. We employ data on firms' compliance with the 1990 Clean Air Act to test the following alternative hypothesis:

Hypothesis 5a (Mandatory Regulations Affect Compliance): Firms with poor compliance records with mandatory environmental regulations are more likely to participate in the 33/50 program.

Hypothesis 5b (Mandatory Regulations Affect Compliance): Firms with good compliance records with mandatory environmental regulations are more likely to participate in the 33/50 program.

Our second primary hypothesis concerns the action between voluntary compliance programs. It seems possible that firms participate in more than one voluntary

environmental program. A firm may attempt to simultaneously project an image of environmental "consciousness" in several different dimensions. We employ data from the EPA Green Lights program (summarized in Section IV.D) to test the following:

Hypothesis 6 (Voluntary Program Interaction): If a company participates in one voluntary environmental program it is also more likely to participate in another voluntary environmental program.

Finally, consider a number of control variables that may also affect program participation, which we shall evaluate as secondary hypotheses. Employing a small sample of firms, Avezar and Cason (1993) found that the size of a firm had a major impact on its likelihood of program participation. Larger firms were significantly more likely to participate, perhaps because they have more flexibility to devote personnel to the administrative requirements of participation, or because they receive a demand benefit from a larger number of consumers. Larger firms could also have greater liability exposure when generating environmental risks because of their "deeper pockets," providing an additional incentive to comply. As in the previous work, we use the number of employees as a measure of firm size, which is highly correlated with other measures such as sales or assets. Firms with a larger number of production facilities may be more likely to participate because a central firm can participate if only one of its facilities participates. Therefore, firms with many facilities have more participation opportunities. The releases of 33/50 chemicals as well as of other TRI chemicals are also likely to influence the participation decision in the program. Firms with greater releases

⁵ Avezar and Cason (1993) provide evidence that firms do not participate to obtain reduced emissions from the EPA on mandatory regulations because EPA penalties in 1991 were more severe for program participants than non-participants. Of course, we cannot determine if this difference would have been greater if some potential firms were not program participants.

may receive a greater increase in consumer goodwill when making reductions, which would increase the likelihood of program participation. We also employ release intensity (tonnes/employment) to assess this fact.

Participation rates in this program may differ depending on the EPA region in which the firm is located. EPA regions differ in the stringency of their environmental regulations as well as their level of enforcement. Furthermore, states in some of the EPA regions already have mandatory toxic use reduction laws as well as pollution prevention laws that facilitate participation in the 33/50 program. The stringencies and agreements of EPA coordinators in releasing firms to join the 33/50 program may explain why some regions have higher participation rates than others. We assess these differences based on reduced form estimates.¹⁴

IV. DESCRIPTION OF THE DATA

The research employs five data sources, described in the following subsections. The Toxics Release Inventory provided environmental data, including the releases and values of all toxic substances for nearly 100 facilities in the United States. We used these data with the EPA Commitment Tracking System (CTS), which provides the participation data of a firm in the 33 program as well as employment data from Dun & Bradstreet. We employed Statistics Canada's Compendium database to calculate several industry-specific variables, such as average intensity, R & D intensity, and fixed-asset concentration measure. The 15 AIR offices provided air compliance data for over 45,000 facilities. Finally, we used participation data for EPA's Green Lights program from its list of participants (EPA 1994b).

¹⁴The Toxics Release Inventory and Commitment Tracking System

¹⁵Title III of the Superfund Amendments and Reauthorization Act (1986) requires encouraging establishments (SIC 20-99)

to report their releases and transfers of 300 toxic chemicals. The Act requires facilities which manufacture or process more than 25,000 pounds or use more than 10,000 pounds of any of the toxic chemicals to submit a TRI report (EPA 1992b). This report includes releases into the air, land (on-site land, underground injection wells, and off-site transfer), and water (surface and publicly owned treatment works). In addition to the environmental data, each facility reports its location, primary SIC code, and parent company.

The 33/50 chemicals are a subset of the TRI chemicals, and we employ aggregated data separated into 33/50 and non-33/50 toxic releases. Anon and Oates (1995) compare two methods of aggregation—first weighting all chemicals equally and another that accounts for the different toxicity of the different chemicals. Most of the volume of toxic releases have similar toxicity (EPA 1989), so the results were not sensitive to the weighting scheme. Therefore, we simply aggregated the 33/50 releases and employed equal weights.

For some estimates below we also disaggregate by release medium (air and other). For the 33/50 program participation model we employ release data for 1990. This was the final full year before EPA announced the program, so these release values are contiguous to the program participation decision. (Recall that the EPA announced the program in February 1991.) We also employ 1988 releases when measuring release reductions between 1988 and 1990, and in first-stage estimates of the instrumental variables approach discussed below.

¹⁶We do not include additional financial variables for two reasons. First, previous work (Anon and Oates 1995) indicates that financial variables such as profit and debt ratio were the best indicators of participation. Second, these variables are not available for most of the sample.

¹⁷Because of the differences in areas and regional regulations, to check the robustness of the results we reestimated the models using state rather than regional fixed effects. Most state effects were insignificant, and the qualitative results and all conclusions were unchanged in this alternative specification.

important differences for these variables across industries. We divided these expenditures by overall industry sales to represent R&D and advertising intensity for each industry. These measures vary widely from industry to industry, and we believe they capture important differences across firms although we do not have values for firms individually.¹¹

C. Mandatory Environmental Compliance

These data were provided by the AIR enforcement offices of the EPA. We obtained compliance data under the AIR program for approximately 45,000 facilities. Compliance is assessed against regulations drafted under the following major programs: These include the State Implementation Program (SIP), National Emission Standards for Hazardous Air Pollutants (NESHAP), New Source Performance Standards (NSPS), and several non emission programs. The 45,000 facilities for which we have data represent all major sources as well as NESHAP and NSPS sources. A facility can be out of compliance for a number of reasons, such as improper equipment (design violations) or excess emissions (performance violations). Unfortunately, the data are not refined enough for us to isolate only performance violations to define noncompliance.

Compliance data were provided for nine quarters. For each quarter, the data categorize each facility into three classes—compliant, in violation, or missing. Percent firms

¹¹ As pointed out by an anonymous referee, the use of these industry-level variables leaves open the possibility that the variables are simply correlated with advertising, and R&D are simply other output industry or firm-specific variables. The best solution to this problem would be to survey the firms to collect additional data not contained in publicly available records—for example, to try to measure the relative contribution of equipment or emissions, which come from R&D expenditures. Because of our dependence on public data, we cannot do this. However, we do not present such primary data either.

A limitation of the TRI data set is that it is self-reported and so there may be an incentive to underreport the releases. These may also exist as incentives to overreport if firms expect to be rewarded for improvements relative to a baseline emission level. According to a report prepared by Radwin Corporation (1991), based on a site visit program for 1988, the overall quality of the 1988 TRI data was good for large reporting firms. This raises the question of the accuracy of under- and overreporting of data. There is also some evidence that accuracy of estimates has improved over time. For example, facilities reported more accurately for 1988 than for 1987. EPA's Compliance Tracking System (CTS) provided information on the 33/50 participation status of each firm.

A. Compliance Database

We obtained firm-level data from Standard & Poor's COMPUSTAT for 1980-1985. Again, we chose 1980 because these data are contiguous to the program participation decisions. This database provides information on all publicly traded firms that file 10-K forms with the Securities and Exchange Commission. Our universe of companies consists of privately held companies as well, but for the computations below we can only use data on publicly traded firms. As discussed previously, we are interested in time variables in particular: industry compliance, R&D expenditures, and advertising expenditures. Obviously, concentration is an industry characteristic, and we calculated the Herfindahl index for each 2-digit SIC code. It would be preferable to use firm-specific R&D and advertising expenditures, but this was not possible for two reasons. First, these variables are not reported for some smaller firms in the sample. Second, the COMPUSTAT database does not include the firm's Dun and Bradstreet (DUNS) number, so it is not possible to merge these data on a firm-by-firm basis with the environmental data. Therefore, we calculated overall industry expenditures on R&D and advertising to capture the

...ed—offices have multiple facilities in this database. A firm with a facilities has up to 47 quarters opportunities to be out of compliance. In the model reported in the next section we assume compliance with an indicator variable equal to one if any facility belonging to this parent was out of compliance for any quarter, and zero otherwise. We also examined other measures—such as the percentage of facility/quarters out of compliance—which generated similar results.

D. Voluntary Participation in the EPA Green Lights Program

The Green Lights program is a voluntary pollution prevention program through energy conservation. By signing a Memorandum of Understanding, signing management recognizes energy efficient lighting as an important goal. The EPA provides technical assistance and—like the 33/50 program—public recognition for participants. From EPA's perspective the Green Lights program is completely independent of the 33/50 program. The decision to participate in the 33/50 program and/or the Green Lights program can be made at different levels ranging from the CEO, Chief Financial Officer, the Vice President for Environmental Affairs, or the facility manager. Depending on the corporate hierarchy and how centralized the decision-making of the firm, the participation decision for both programs may be made by the individual.

The data on the participation status were obtained from the list of participants as published in March 1994. As of this date we were 480 corporate partners, 430 utilities, and 120 contractors. The partners include major corporations, other industry groups, as well as nonprofit organizations, hospitals, and universities. The allies are the electric utilities and the contractors are professional and trade associations. Less than 20 firms that are corporate partners under the Green Lights program are in the 33/50 program, although EPA invites all corporations to join the Green Lights program (see Canto and Walkus forthcoming for more

details and a thorough analysis of participants' decisions in the Green Lights program).

E. Summary Statistics

Table 2 provides summary statistics for the explanatory variables, separately for the program participants and nonparticipants. About 14.6 percent (1,086 out of 7,500) of the firms in the sample are participants. Table 2 indicates that participants are concentrated in industries which have greater advertising expenditures as well as slightly higher R & D expenditures. Participants are also typically large firms with substantial revenues of 33/50 and other toxic chemicals. The multivariate regressions in the next section determine the marginal impact of these different factors on program participation.

V. ECONOMETRIC MODELS AND RESULTS

The dependent variable we model is the firm's decision to participate in the 33/50 program. This variable is dichotomous, so we employ maximum-likelihood probit estimation. This approach is complicated by the existence of several endogenous explanatory variables, which required first-stage equations to correct for selection bias. All of the endogenous regressors are also dummies, so we follow the instrumental variables approach described by Heckman (1978) to generate consistent second-stage estimates for the participation model. Before presenting the second-stage results, we therefore discuss the first-stage estimates for the program invitation group variables.

As discussed in Section II, the EPA invited the firms to participate in three phases. Not surprisingly, the participation rate of the firms invited earlier is higher, probably due in part to the additional time they have had to formulate a participation strategy. EPA prioritized the firms in three invitation

¹² Personal communication with Mike Bines and Carl Trosch (33/50 program administrators at EPA) and Deborah Cramer (Green Lights program administrator at EPA).

TABLE 2
SUMMARY STATISTICS FOR PROGRAM PARTICIPANTS AND NONPARTICIPANTS
(Mean (Standard Deviation))

Variable	Participants	Nonparticipants
Advertising Expenditure: Advertising Expenditures + Sales (expressed as a percentage)	2.81 (2.86) N=6,613	2.13 (2.06) N=6,613
R&D Intensity: Research and Development Expenditures + Sales (expressed as a percentage)	1.84 (1.80) N=1,096	1.77 (1.74) N=6,613
Herfindahl Index	0.005 (0.003) N=1,096	0.007 (0.004) N=6,613
Percent Reduction in 13/50 Program Toxic Releases and Transfers from 1988 to 1990	31.32 (94.00) N=1,096	42.34 (92.30) N=6,613
Employment (thousands)	8.07 (11.52) N=1,096	1.61 (5.21) N=5,487
Number of Facilities	3.91 (8.34) N=1,096	1.65 (2.51) N=6,613
13/50 Program Toxic Releases and Transfers (millions of pounds)	8.58 (23.54) N=1,096	8.89 (31.72) N=6,613
Non-13/50 Program Toxic Releases and Transfers (millions of pounds)	1.80 (10.30) N=1,096	8.69 (43.70) N=6,613
13/50 Release Intensity: 13/50 Program Toxic Releases - Employment	0.86 (2.62) N=1,096	0.25 (0.83) N=6,613
Phys-13/50 Release Intensity: Non-13/50 Program Toxic Releases - Employment	0.70 (2.10) N=1,096	0.19 (1.31) N=6,613
1988 13/50 Program Toxic Releases and Transfers (millions of pounds)	0.78 (2.77) N=1,096	0.08 (0.46) N=6,613
Total Toxic Air Releases (millions of pounds)	2.13 (4.54) N=1,096	0.43 (1.01) N=6,613
Air Release Intensity: Total Toxic Air Releases - Employment	0.23 (0.20) N=97	0.28 (1.01) N=6,613

Note: All values are from 1990 unless noted otherwise.

groups based on releases and size, so the release groups are endogenous. However, 1988 releases are exogenous with respect to program participation decisions, and the EPA used the 13/50 chemical releases from 1988 to form invitation groups. Consequently, we use the 13/50 chemical releases in 1988 as exogenous instruments to predict EPA invitation group selection. We employed an ordered probit specification (for three ordered invitation groups), using two explanatory variables: total 13/50 releases in 1988 and an indicator variable equal to 1 if 1988 13/50 releases were positive. (We included this latter regressor because the third invited group did not have any 13/50 releases in 1988.) This first-stage estimation successfully classified 48 percent of the firms into the proper invitation group. Because this estimation has no economic significance, we do not report the results here. (Details of these estimates are available upon request.)

industry characteristics significantly affect the probability of participation in the program. The positive coefficient on Advertising Intensity supports the hypothesis that firms in industries with greater contact with consumers (measured by advertising) are more likely to voluntarily reduce emissions. (We consider the economic significance of all coefficient estimates below.) The positive coefficients on R&D Intensity supports the hypothesis that firms in industries already engaged in substantial R&D effort have the capability to devote resources to pollution prevention R&D. The negative coefficient on the Herfindahl Index is not significantly different from zero, which does not allow us to reject either of the two competing hypotheses for the implications of industry concentration on environmental performance.¹³

Model 1 also allows us to test our secondary hypotheses regarding other firm-specific factors. The estimates on Employment and Employment Squared indicate that the larger the size of the firm the more likely it is to participate in the 33/50 program, but that this size impact on the participation probability is decreasing for larger firms.¹⁴ (The parameter estimates indicate that increased employment reduces participation likelihood beyond about 250,000 employees, but only for firms in the sample are at least this large.) Recall that a three-point exposure could apply here, if larger firms have greater facility exposure when causing environmental risks. The number of facilities owned by the parent company does not significantly increase the likelihood of participation by the parent firm. This is perhaps surprising because a parent firm can participate in the 33/50 program if only one of its facilities participates, so firms with a greater number of facilities have more participation opportunities. A greater amount of non-33/50 toxic releases increases the likelihood of program participation, but at a decreasing rate (relative to the employment variable). This supports the hypothesis that public disclosure of toxics releases through the TRI puts pressure on the most polluting firms to participate in the program. The positive coefficient

on 33/50 Release Intensity provides further support for this view, because it indicates that the likelihood of participation increases significantly for those firms with greater toxic releases relative to firm size. Finally, the positive and significant coefficients on the emission group variables indicate that the participation probability is greater for those firms first invited by EPA to participate in the program, even after controlling for this (significant) selection bias. Model 2 addresses the hypothesis regarding the interaction between different voluntary environmental programs. As discussed above, EPA's Green Lights program is a voluntary energy conservation program, and the 33/50 program is a voluntary toxics reduction program. Unfortunately for our purposes, firms made Green Lights participation decisions near the same time as their 33/50 participation decisions, so the Green Lights participation decision is clearly endogenous. Despite our best efforts we were unable to successfully identify a set of exogenous instruments to model the Green Lights participation decision. Therefore, Model 2 simply includes an indicator variable equal to one if the firm participates in the Green Lights program, but this reader is cautioned that there exists a potential endogeneity problem in this estimate.

This model shows in column (2) of Table 3 correctly classifies 87 percent of the firm's 33/50 participation decisions, and the statistically significant estimated coefficients are very similar to those of Model 1. The new coefficient estimate on Green Lights is positive and highly significant, indicating that firms that participate in one voluntary pro-

¹³ This result contrasts with the negative and significant estimate on the Herfindahl Index in Auer and Caves (1992), which was based on a much smaller sample size and a subset of toxic industries with the greatest toxic releases. The earlier result requires great caution because it might reflect unmodeled environmental performance, but only for those industries with the greatest toxic releases.

¹⁴ We enter this variable as a quadratic function for the 33/50 program and derive variables after controlling for size and other available specifications. This functional form is based on the Akaike Information Criterion for model selection (see Amemiya 1985, chap. 4).

TABLE 4
CONTRASTING TABLE FOR 33/50 PARTICIPATION AND
GREEN LIGHTS PROGRAM PARTICIPATION

	33/50 Program		Total
	Nonparticipating Firm	Participant Firm	
Green Light Program Nonparticipating Firm	4,306	1,046	7,652
Participant Firm	77	48	76
Total	6,413	1,083	12,370

Note: Chi-square test statistic for independence = 153.4.

firm are more likely to participate in the other voluntary program. Of course, no causality can be inferred from the available data. Because of the endogeneity problem underlying Model 2, we present a simple contingency table analysis in Table 4 to illustrate the nonindependence of the two programs. (The sample size represented in Table 4 is greater than Table 3 because the estimates in Table 3 include only firms with complete data for all variables.) The overall participation rate in Green Lights is relatively low compared to the 33/50 program—about 1 percent of the sample. However, the participation rate is more than 4 percent among 33/50 program participants, and is less than 0.5 percent among 33/50 program nonparticipants. The chi-square statistic for this contingency table is more than 150, which allows us to strongly reject the null hypothesis that the two participation decisions are independent.

Model 3 investigates whether firms that participate in the 33/50 program are more likely because of significant toxics reductions prior to the initiation of the program. As discussed in Section II, earlier reductions between 1988 (the 33/50 program initiation) and 1989 (the first year before EPA announced the program in February 1991) may have resulted, for example, from firms' responses to public disclosure of the toxics releases in the TRL. Firms receive credit in the 33/50 program for reductions in releases relative to 1988 levels, so a firm's response to the public disclosure of the program in its participation results from only reductions between 1988 and 1990, with no

significant reductions after 1990. Our data would indicate that this free-riding is common if reductions in 33/50 chemicals prior to 1991 significantly increase the likelihood of program participation.

Model 3 adds a variable that measures the percentage reduction in 33/50 chemicals made between 1988 and 1990. This sample excludes the third group of invited firms because this group had no 1988 33/50 chemical releases, so for these firms the percentage reduction variable is not defined. Consequently, the Model 3 sample size reduces to 4,040 firms.¹⁷ The coefficient estimate for this new percentage reduction variable is about the size of its standard error, which indicates that firms that reduced 33/50 chemicals before EPA initiated the program are not significantly more likely to participate in the program. The coefficient estimates of the other significant variables are generally stable compared to the Model 1 and Model 2 estimates.¹⁸ In

¹⁷ Because this model omits the Third Group beyond the first-stage invitation group model reduces the number of firms participating in a simple profit estimation of the First Group limited based on 1988 33/50 program releases.

¹⁸ The First Group invited coefficient remains the same in Model 3. However, we omitted the Second Group limited for this equation because the Third Group of invited participants is included in Model 3. Besides, this coefficient now represents the difference between the First Group invited and Second Group invited coefficients estimated from the previous model. The First Group limited estimate of Model 3 is very close to the difference in the First Group invited and Second Group invited coefficient estimates in Model 1 and 2, as expected.

many, Model 3 provides no support for free-riding hypothesis.

Model 4 examines the interaction of the voluntary 33/50 program with mandatory environmental regulations. Recall the two competing hypotheses for this interaction: the one stated, firms may be participating in the 33/50 program in an attempt to gain credit from the EPA and receive relaxed treatment on mandatory environmental regulations. According to this view, firms with inferior compliance records with mandatory regulations should have a greater likelihood of 33/50 program participation. An alternative hypothesis is that firms first meet the mandatory environmental regulations, and then devote resources to meet more stringent voluntary standards. According to this alternative view, 33/50 participation should be more likely for those firms with a superior mandatory compliance record.

To test these hypotheses we examine firms' records of compliance with the air regulators for nine quarters from 1992/1 to 1994/1. Note that a firm's compliance record depends on firm-specific factors and occurs at the same time as participation decisions in the 33/50 program. Hence this compliance performance is not exogenous. We therefore calculate first-stage estimates to provide instruments for this compliance variable. These first-stage estimates are using as their own right, so they are stated in Table 5.

First, note that the sample size for Table 5 is smaller than the sample size for Table 4. The AIR office compliance tracking program includes more than 45,000 facilities using those without substantial toxic releases. The AIR compliance data cover less than a 600 percent compliance in our sample. Therefore, we are only able to construct compliance variables for a small subset of the potential 33/50 program participants. The compliance records were derived from individual parent companies from their facility records, and we created an indicator variable equal to 1 if any facility of that parent company was out of compliance with air regulations for any of the nine quar-

TABLE 5

RESULTS FROM FIRST-STAGE PROBIT EQUATION FOR MODEL 4: CLEAN AIR ACT COMPLIANCE (Dependent Variable = 1 if any facility is out of compliance with the Clean Air Act, 0 otherwise)

Variable or Statistic	Estimate
Advertising Intensity	-0.077*
R & D Intensity	-0.042
Size	0.043
Horizontal Intra	-0.013
Employment (thousands)	0.000
Employment (thousands) Squared	-0.0002
Number of Facilities	0.000
Total Toxic Air Releases (thousands of pounds)	0.000
Air Releases Intensity, Total Toxic Air Releases + Employment	-0.124
Log Likelihood	-281.8
National Means - 09 Log L	-33.3
Pseudo R-Squared	.75
Number of Observations	549

Note: Standard errors in parentheses. * indicates a statistically significant result at the 1 percent level. The dependent variable is equal to 1 if any facility of the parent company is out of compliance with the Clean Air Act, 0 otherwise. The sample consists of 13 parent companies with 549 facilities. The dependent variable is equal to 1 if any facility of the parent company is out of compliance with the Clean Air Act, 0 otherwise. The sample consists of 13 parent companies with 549 facilities.

ters.¹¹ Twenty-one percent of the 549 firms in this sub-sample were out of compliance for at least one quarter according to this criterion. Like the second-stage models shown in Table 3, the first-stage probit estimates shown in Table 5 also include regional dummies (not shown). The significant coefficients on the other variables indicate that firms are more likely to be out of compliance with the air regulations if they have a greater number of facilities (i.e., more noncompliance opportunities), more em-

¹¹ We also computed alternative compliance measures such as the proportion of a parent company's facilities out of compliance, but the first-stage probit results were not statistically significant. The main conclusions regarding the likelihood of out of compliance with the Clean Air Act (i.e., more noncompliance opportunities) are unchanged using the alternative measures.

jects, and more toxic air releases.¹³ Firms in industries with substantial advertising expenditures are less likely to be cost of compliance, which provides further evidence that firms connect with consumers in order to improve their environmental performance. Overall, this first-stage model consistently identifies 75 percent of the firms' compliance records.

Following Hochman (1978), we employed the estimated reduced form probability of being out of compliance from the first-stage estimates of Table 3 as an instrument for compliance in our final second-stage Model 4. (This model treats the percentage reduction variable that was insignificant in Model 3 to maintain the highest possible sample size.) As shown in Table 3, this model consistently identifies 83 percent of the participation decisions. Many of the coefficients that were statistically significant in the earlier models are insignificant in Model 4, undoubtedly due in large part to the substantially smaller sample size. The coefficients on the air compliance variable is negative but much smaller than its standard error, which provides no support for either of the competing hypotheses regarding the interaction of the voluntary and mandatory programs.

Although the small sample size for Model 4 reduces power of this test relative to the others in previous models, there does not seem to be a strong relationship between the 33/50 program and compliance with mandatory air regulations.

This study employs a relatively large sample size, so it is not surprising that many of the estimated coefficients in Table 3 are significantly different from zero. It is therefore important to assess the economic significance of the parameter estimates of the models. The profit specification of the models makes it difficult to interpret the estimates directly from Table 3, so Table 6 converts the estimates into the probability of 33/50 program participation. Each row of the table changes one explanatory variable to illustrate its impact on the implied participation probability. This table is based on Model 2 from Table 3, which has parameter estimates very similar to Models 1 and 3.

¹³ Only a subset of these voluntary acts from ozone emissions, and these mandatory regulations also pertain to various releases. Therefore, the total air releases included in a regression for this compliance equation are only one component of the compliance status.

TABLE 4
ESTIMATED IMPACTS ON PARTICIPATION PROBABILITY FOR STATISTICALLY SIGNIFICANT COEFFICIENTS
Model (2)

Example Firm with:	Estimated Participation Probability	Relative Increase Compared to Base 1
All Characteristics of Sample Means	82.1 percent	—
Sample Means + 1 S.D. higher Advertising Intensity	84.1 percent	20 percent
Sample Means + 1 S.D. higher R & D Intensity	11.3 percent	12 percent
Sample Means and Green Light Program Participation	12.8 percent	-1 percent
Sample Means and Green Light Program Participation + 1 S.D. higher Sample Means + 1 S.D. higher Program Balance Intensity (Dad/Cmpd)	25.5 percent	111 percent
Sample Means + 1 S.D. higher	17.4 percent	44 percent
Sample Means + 1 S.D. higher and 33/50 Program	24.1 percent	99 percent
Sample Means + 1 S.D. higher and 33/50 Program Balance Intensity (Dad/Cmpd)	14.8 percent	22 percent

1 S.D., standard deviation.

VI. CONCLUSION

The voluntary approach it gaining increasing currency as a new approach to environmental regulation. This approach undoubtedly saves legislative, enforcement and compliance costs relative to the traditional command-and-control approach. Therefore, because of its flexibility it is likely to achieve improvements in environmental quality (in any) at lower social cost than traditional regulation. However, before economists studying environmental regulation can advocate this approach it is necessary to carefully evaluate its success. This paper focuses on an important program that the EPA has initiated but achieved significant results. While a comprehensive evaluation of the 33/50 program can only be completed in 1997, this paper assesses success of the program based on participation data. Although our analysis is preliminary it can serve as a guide to policymakers advocating the voluntary method.

In our view the results provide cause for optimism regarding this new approach. The 33/50 program may achieve significant results because the largest firms with the greatest toxic releases are the most likely participants. In other words, the program seems to attract the right kind of participants with the greatest release potential based on emission reductions prior to the program's initiation, nor do we find evidence that firms participate to divert attention away from poor compliance with mandatory environmental regulation. We should temper this optimism, however, by noting that (like mandatory regulation) a voluntary program may be poorly conceived and even if successful could have limited improvements in environmental quality. For example, if a voluntary program crowds out investments directed at reducing alternative pollutants that are not part of the program, the net impact of the program could be substantially reduced if the marginal damage costs of these alternative pollutants are higher than those covered by the program.

The first row of Table 6 indicates that when all explanatory characteristics take their sample means, Model 2 implies a participation probability of about 12 percent. This is near the overall participation rate of 15.8 percent for this sample. The second row of Table 6 indicates that if all other characteristics remain at their sample means but Advertising Intensity increases to one standard deviation above its sample mean, then the implied participation probability increases to about 14.5 percent. The third column of this table indicates that this is a 20 percent increase in the estimated participation probability (i.e., 0.145 - 0.12) / 0.12). The third row indicates that an increased R&D intensity raises the estimated participation probability more modestly—only about 12 percent. Rows 4 and 5 compare the implied participation probability for a Green Lights participant and non-participant firm, holding all other characteristics at their sample means. The model estimates imply that Green Lights program participants are more than twice as likely to be 33/50 program participants. Two other firm characteristics that dramatically increase the implied participation probability are employment (raising the probability by 44 percent) and non-33/50 toxic releases and transfers (which doubles the estimated participation probability). Finally, row 8 of Table 6 indicates that the implied participation rate increases by more than 20 percent when 33/50 program release intensity increases to one standard deviation above its mean. Although not shown on this table, the model's estimated participation probability declines monotonically (and substantially) in later initiation groups.

This analysis underscores the key firm attributes in promoting improved voluntary environmental performance. Larger firms with substantial toxic releases are most likely to voluntarily reduce emissions, including a strong participation impact for firms with greater releases of toxic chemicals. Firms in industries with high advertising and R&D expenditures are also more likely to voluntarily reduce emissions, but the estimated impact of these factors is somewhat smaller.

We leave the analysis of this and other
 TO-11 impact for future research.
 This analysis also provides clues into the
 reasons for firms to volunteer to improve
 their environmental performance. Firms in indus-
 tries with higher advertising expenditures
 would seem to have the most to gain from
 using their image, and indeed these
 firms are significantly more likely to partici-
 pate in the 33/50 program. This provides
 some support for the hypothesis that a key
 reason for public recognition is a by-
 product of environmental regulation, on that regu-
 lation should consider publicity and con-
 sumer awareness to be important design
 features of any voluntary program. In the
 most recent 33/50 progress report (EPA
 1995), EPA discusses possible awards that
 can be presented in 1997 (after the 1995
 XI is available) to recognize firms that
 achieved outstanding pollution reductions in
 its program. While we believe that this
 increased public recognition is useful to help
 the program realize its goals, our results
 indicate that regulators should consider the
 important role of these awards, and other
 forms of public recognition as a major de-
 sign feature of voluntary environmental pro-
 grams.

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From: The RFF Reader in Environmental &
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RFF Press, Washington, DC 1999

A Voluntary Approach to Environmental Regulation The 33/50 Program

Seema Arora and Timothy N. Cason

Voluntary pollution reduction gives companies an opportunity to take least-cost actions to reduce pollution and at the same time gain positive public recognition. Given these potential advantages, will voluntary pollution reduction programs attract large numbers of participants and result in large pollution reductions? An analysis of the U.S. Environmental Protection Agency's 33/50 Program suggests that willingness to participate in that program varies greatly among industries and among firms; indeed, only a small percentage of any industry's firms are participating in the program. However, the companies that are participating are responsible for a large percentage of toxic emissions. Thus pollution reductions due to the program could be substantial.

Pollution reduction programs that encourage voluntary participation by companies are gaining currency as a viable approach to environmental improvement. But can voluntary programs be effective in reducing pollution? What kind of company would decide to participate? And what kinds of pollution reductions would be made?

To answer these questions, we conducted a study of the 33/50 Program, a voluntary pollution prevention initiative designed by the U.S. Environmental Protection Agency (EPA) to reduce toxic releases. This program stresses cooperation between regulators and industry and provides positive feedback and awards to participating firms. We evaluated factors that lead to participation in this program by industries and by individual firms. We also compared the 33/50 Program with other voluntary pollution control programs. Before we summarize our findings, however, we present some background on voluntary compliance and the 33/50 Program itself.

The Movement toward Voluntary Compliance

In 1984, a poisonous gas leak from a Union Carbide pesticide plant in Bhopal, India, killed more than 2,500 people and permanently disabled some 50,000 more. Since then, the potential for accidental chemical releases has worried residents of communities near industrial plants, who have wanted to know what chemicals these plants are emitting in order to prepare for such releases. U.S. residents began advocating local community right-

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to-know laws, augmenting a movement for worker right-to-know laws that had begun in the late 1970s.

The chemical disaster in Bhopal also catalyzed the movement for a federal community right-to-know law. In 1986, Congress passed the Emergency Planning and Community Right-to-Know Act, which embodies the principle of public disclosure. The act requires all manufacturing facilities to report annually on releases and transfers of more than 320 toxic chemicals. This reporting has resulted in the creation of a national database called the Toxics Release Inventory (TRI).

One of the results of mandated public disclosure has been public pressure for accountability. Such pressure may be exerted by consumer groups, citizen action groups, or the media. Even the mere anticipation of public pressure can lead companies to alter their behavior, as it did in the case of Monsanto.

When the TRI was first publicly reported in 1987, Monsanto discovered that it was one of the largest polluters. This discovery led the company to pledge to reduce its toxic air releases by 90 percent by the end of 1992. Several features of this pledge are striking. First, the pledge was voluntary, as the company was not violating any environmental standards. Second, it came from the highest echelon of the corporation—in fact, from Richard Mahoney, Monsanto's chief executive officer. Third, it set a trend for other polluting firms to follow.

While public disclosure prompted Monsanto to act before consumers, citizen action groups, and the media had time to react to the TRI information, other companies needed more urging. Soon after the first TRI was reported, the *New York Times* published a full-page advertisement, which was sponsored by citizen action groups, highlighting the top ten corporate land polluters, water polluters, and air polluters. Firms that figured prominently in the ad immediately approached EPA and pledged to improve their environmental performance.

By the late 1980s, many companies that had not been at the forefront of environmental stewardship began to adopt a much more proactive environmental stance. Among the results of the compa-

nies' inclination toward voluntary action was the 33/50 Program.

The 33/50 Program

The 33/50 Program gets its name from its two-step reduction goals: a 33 percent reduction of chemical releases and transfers from 1988 levels by 1992 and a 50 percent reduction by 1995. The program encourages firms to develop less-toxic substitutes for highly toxic chemicals, reformulate products, and redesign production processes in order to reduce pollution at its source. It focuses on seventeen of the 320 TRI chemicals that are highly toxic, are produced by industry in large volumes, and present pollution prevention opportunities. The 33/50 Program stresses flexibility, allowing participants to reduce releases of any of these chemicals into any environmental media (air, land, or water). Since about 70 percent of these releases are into the air, however, the 33/50 Program is primarily an air toxics reduction program.

Participation in the program is voluntary and does not change a firm's responsibilities for complying with environmental laws. Indeed, EPA claims that it will not give preferential treatment—such as relaxed regulatory oversight or enforcement of EPA regulations—to program participants. Because participation is voluntary, commitments to achieve pollution reductions are not legally enforceable—in fact, firms are free to renege. Nevertheless, many companies that have decided to participate in the 33/50 Program have submitted detailed timetables and pollution reduction targets.

Incentives for participation in the 33/50 Program include public recognition by EPA, special awards for outstanding achievements in pollution prevention, and, significantly, the opportunity to take least-cost actions to mitigate pollution. Unlike mandatory programs, this voluntary program allows firms the flexibility to make the emissions reductions that are most cost-effective for them. Moreover, EPA provides assistance to the companies making these reductions by conducting regional pollution prevention workshops and by

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providing access to the agency's Pollution Prevention Information Exchange System.

Voluntary pollution reduction programs such as the 33/50 Program appeal to regulators because the programs require EPA to engage in no costly rulemakings. Furthermore, they save regulators the substantial costs of monitoring and enforcing compliance.

EPA initiated the 33/50 Program in February 1991, when it invited 555 companies with substantial chemical releases to participate. It later extended this invitation to all other firms that release chemicals targeted by the 33/50 Program. As of March 1994, the agency had invited more than 8,000 companies to participate in the program. To date, nearly 1,200 of these firms have done so.

The 33/50 Program has been hailed as a success. It exceeded its 1992 interim goal (a 33 percent reduction in emissions) by more than 100 million pounds—a reduction of more than 40 percent from 1988 emissions levels. According to the projections of participating firms, the 1995 target is also likely to be achieved.

Participation by Industry and EPA Region

Since participation is critical to the success of voluntary pollution reduction programs, we examined the factors that may have led 1,100 of the more than 7,000 firms in our study sample to take part in the 33/50 Program. Our analysis revealed substantial variation in the willingness to participate among different industries and EPA regions. Among industries, this variation may be explained by levels of advertising as well as research and development (R&D) expenditures; the strength and environmental commitment of trade and manufacturer associations; and each industry's market structure. Among EPA regions, the variation may be due to differences in the regions' environmental regulations. We look at each of these factors in turn.

The amount of money an industry spends on advertising and on R&D helps to explain which industries participate in the 33/50 Program. Industries with high advertising expenditures tend

to have high levels of contact with consumers. If consumers are environmentally conscious, we would expect that participation in the 33/50 Program would be higher among industries that produce final products, and hence have a lot of consumer contact, than among industries that produce inputs to final products. When we tested this hypothesis using advertising expenditures as a proxy for consumer contact, we found that the greater an industry's advertising expenditures, the greater the likelihood that it participates in the 33/50 Program. Industries with high R&D expenditures are also likely to participate in the program, perhaps because a commitment to developing new products is consistent with the program's goals.

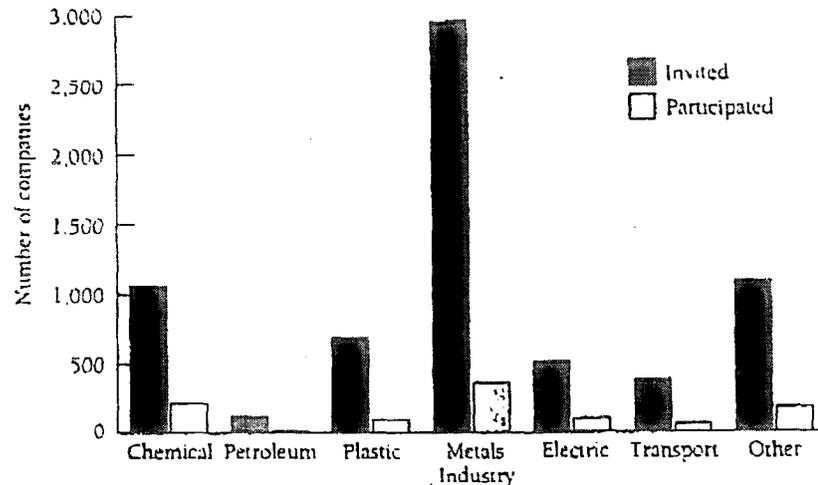
The comparative strength and environmental commitment of trade and manufacturer associations is another factor in industry participation: industries with associations that exert a strong measure of influence on members' actions and that stress environmental stewardship are likely participants. The high participation rate within the chemical industry may be owing in part to the fact that all members of the Chemical Manufacturers Association must join Responsible Care, an initiative with goals similar to those of the 33/50 Program.

The market structure of each industry may also help explain which industries participate in the program. Recent trends in "green" marketing and in consumer awareness of environmental issues, as well as theoretical work on firms' environmental performance, provide a basis for the expectation that firms compete on environmental variables, particularly when they are part of an industry in which competition is great and individual market shares are small. We confirmed this intuition in a study of a small sample of firms for which we were able to combine financial (or economic) information with toxic release data. The study indicates that unconcentrated industries, in which firms have many competitors (and hence small market shares), are more likely to participate in the 33/50 Program than concentrated industries.

Within EPA's ten regions, the variation in willingness to participate may be a result of differences

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Figure 1. Participation in EPA's 33/50 Program by industry.



among the regions' environmental regulations. In some regions, EPA may mandate pollution prevention laws or toxics reduction laws that complement 33/50 Program goals. In regions where this is the case, willingness to participate may be relatively high. Moreover, regional variation may reflect the varying stringency of environmental regulations in individual regions. It may also be a measure of the effectiveness of EPA's regional coordinators in recruiting firms to join the 33/50 Program.

Participation by Individual Firms

Our research revealed many determinants of the willingness of individual firms to participate in the 33/50 Program. Overall, we found that only a small percentage of the invited firms in any one industry chose to participate (see Figure 1). However, the firms that did participate were responsible for a large percentage of their industry's toxic emissions (see Figure 2). Specific determinants, such as the volume and number of 33/50 chemicals and other TRI chemicals that a firm emits, a firm's size and financial health, and the intensity with which EPA tries to recruit it, are considered next.

Firms that use high volumes of the seventeen chemicals targeted by the 33/50 Program (as well as of other TRI chemicals) obviously have the potential for making the largest aggregate reduction in releases of these chemicals and are more likely to participate in the 33/50 Program. By voluntarily reducing these releases, these firms may benefit from consumer goodwill.

In certain circumstances, however, the larger a firm's release intensity (as measured by the volume of chemicals emitted per volume of sales), the more unlikely it is to participate in the 33/50 Program. Firms with high release intensities will incur high costs per volume of sales if they switch to alternative chemicals and production processes.

The number of chemicals a firm releases is also a significant determinant of its willingness to participate in the 33/50 Program. Firms that emit a large number of chemicals are more likely to participate, perhaps because these firms possess greater opportunity and flexibility to develop less toxic chemicals.

Holding other factors constant, large firms, as measured by number of employees, are also likely to join the program. These firms may enjoy greater benefits from participation than small firms because they

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typically serve a larger market demand and because improved environmental performance may generate employee goodwill. Compared with small firms, large firms may also feel more pressure to participate in the 33/50 Program. Large firms have more shareholders, and shareholder pressure for environmental consciousness could spur program participation.

While large size increases the likelihood that a firm will join the 33/50 Program, the fact that a firm has a large number of facilities does not. This finding is contrary to our expectation, since firms could theoretically benefit from public recognition, even if just one of their facilities participated in the program.

Financial health and profitability is another determinant of participation. Increased earnings provide opportunities for firms to invest in pollution prevention. While profitability increases the likelihood of participation, our analysis showed that its effect on the firms in our study sample was not significant.

A significant determinant of a firm's willingness to join the 33/50 Program is the intensity of EPA contact. EPA consulted extensively with the 555 companies it initially invited to join the program. At one point, participation among these companies was as high as 60 percent. By contrast, the

participation rate among the approximately 6,000 companies EPA later invited to join the program has been less than 15 percent. With these companies the agency had comparatively little contact.

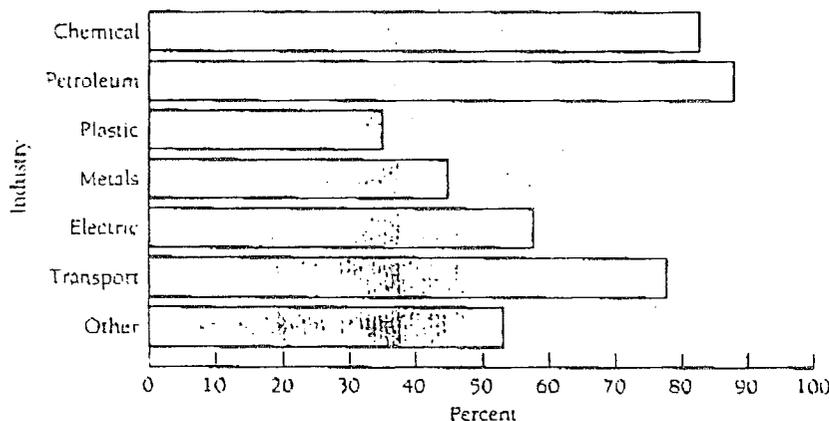
Distinguishing between TRI and 33/50 Program Emissions Reductions

Once we knew something about the industries and firms that participated in the 33/50 Program, we wanted to know whether emissions reductions made by program participants were attributable to the 33/50 Program or to the disclosure requirements of the Toxics Release Inventory.

Our research indicates that program participants are not free-riding on the reductions that they made in response to TRI disclosure requirements, which went into effect in 1988. Instead, the 33/50 Program has induced firms to modify their toxic emissions, as is clear from the changing pattern of toxic releases since the program began.

Our analysis suggests that, between 1988 and 1990, releases and transfers of the seventeen chemicals targeted by the 33/50 Program fell by 16 percent, while releases and transfers of other TRI chemicals fell by 24 percent. This pattern changed

Figure 2. Releases of toxic emissions by companies participating in the 33/50 Program as a percentage of emissions for their industries (1990).



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dramatically after the 33/50 Program was initiated. Between 1990 and 1991, releases and transfers of 33/50 Program chemicals fell by 21 percent, while releases and transfers of nonprogram chemicals fell by only 8 percent. The 1992 data reveal that reduction rates for the program chemicals are four times those reported for other TRI chemicals. A breakdown of these data by program participants and nonparticipants reveals that both groups have increased their reductions of chemicals targeted by the 33/50 Program. This suggests spillover effects from the program. The availability of more environmentally friendly products and chemical substitutes has made it easier for even nonparticipants to achieve emissions reductions.

But could reductions in chemicals targeted by the 33/50 Program be "crowding out" potential reductions or even increasing emissions of other chemicals? The answer is probably "no." We found that releases and transfers of nonprogram chemicals by program participants have fallen more than 12 percent. This finding suggests that the 33/50 Program has been successful in setting priorities with respect to the chemicals targeted by firms in their pollution control efforts. In addition to encouraging reductions in emissions of some of the most toxic chemicals, the program may also bring about reductions in emissions of other toxic chemicals.

33/50 Program and Other Voluntary Pollution Control Programs

Our evaluation of the 33/50 Program raised three additional questions. Does a firm's participation in another voluntary pollution reduction program affect its likelihood of participating in the 33/50 Program? Does a firm's participation in the program affect its compliance with environmental regulations? Do firms that participate in the program get preferential treatment in terms of relaxed regulatory oversight and enforcement of EPA regulations?

To answer the first question, we examined the relationship of the 33/50 Program with EPA's Green Lights Program. Participants in the Green Lights Program sign a memorandum of understanding

with EPA in which they agree to install energy-efficient lighting to reduce emissions of greenhouse gases. As with the 33/50 Program, the major incentive for participating in the Green Lights Program is positive public recognition. Of the more than 1,000 participants in this program, ninety are corporations that release chemicals targeted by the 33/50 Program. Our analysis reveals that participation in the Green Lights Program significantly increases the likelihood that a firm will participate in the 33/50 Program. This observation suggests that "environmentally conscious" firms seek to improve their reputation by participating in several voluntary pollution reduction programs at the same time.

Our second question was prompted by fears that firms can use participation in the 33/50 Program to circumvent some environmental regulations under the Clean Air Act. Skeptics of the program argue that this participation may be a way to obtain an extension for complying with certain of the act's requirements. While such an extension may be obtained through participation in the 33/50 Program, it is more appropriately obtained by participation in the Early Reductions Program. Any reductions in hazardous air pollutants documented under the Early Reductions Program may be credited under the 33/50 Program and vice versa. Unlike the 33/50 Program, however, the Early Reductions Program is more stringent and is, in fact, enforceable.

If firms could obtain extensions for compliance with regulations under the Clean Air Act through participation in the 33/50 Program, the success of the program as an alternative policy tool would be diminished. The ability to obtain such extensions would suggest that firms' participation in the program was not really motivated by the desire to gain positive public recognition. However, there is no evidence to support this theory.

Our third question was prompted by the concern that firms participating in the 33/50 Program might get preferential treatment from EPA, despite the agency's claim that it would not relax regulatory oversight or enforcement for program participants. Our examination of enforcement decisions made

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and penalties proposed in 1993 under the Toxic Substances Control Act (TSCA) provides some evidence that supports EPA's claim. Of the twenty-three companies that were fined under TSCA during that year, eight were participants in the 33/50 Program. These eight companies also received the highest fines. Even within the toxics unit of EPA's enforcement program, participation in the 33/50 Program does not seem to reduce substantially inspections or penalty settlements.

In the enforcement of other environmental laws and programs, EPA intervention on behalf of participants in the 33/50 Program is probably even less likely. Since the 33/50 Program is federal and since most of EPA's enforcement takes place at the state level, widespread intervention in state enforcement programs on behalf of program participants is unlikely. However, participants might believe that they can get preferential treatment, even though EPA's enforcement behavior does not appear to corroborate this belief.

Implications of the 33/50 Program

Our research reveals that the companies with the largest amounts of toxic releases are most likely to take part in the 33/50 Program. This suggests that this voluntary program may achieve substantial pollution reductions because it targets firms with the greatest pollution reduction potential.

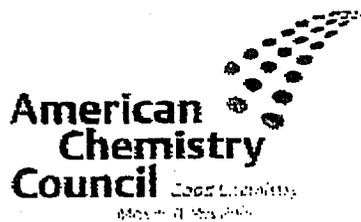
Our research also indicates that a voluntary approach to pollution reduction could augment existing command-and-control regulation, under which mandated pollution reductions and prescribed technologies for achieving those reductions give firms little flexibility to control pollution in a cost-effective way. The potential for voluntary programs to augment such regulation is increased when their progress can be tracked through publicly available information that introduces accountability for pollution control and rewards pollution reduction efforts beyond those required by law.

Indeed, public awareness of the pollution reductions achieved through innovative voluntary programs can increase the programs' effectiveness. Regulators can use this awareness to increase participation in such programs, thereby spurring competition in environmental quality. Of course, public disclosure is not a costless exercise for firms, which under the requirements of the Superfund Amendments and Reauthorization Act must report their releases and transfers of chemicals. Estimates of doing so have ranged from EPA's conservative estimate of \$4,000 per TRI chemical to the Chemical Manufacturers Association's estimate of \$7,000.

The benefits, in terms of consumer goodwill, might outweigh the costs of such disclosure when a firm can document substantial pollution reductions through participation in voluntary pollution control programs. To help ensure these benefits, EPA should provide substantial public recognition and awards to firms achieving such reductions. Greater public awareness of firms' participation in voluntary pollution control programs is key to achieving the program's goals.

Suggested Reading

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FAX Cover Sheet

To: The Honorable Philip Cooney, Chief of Staff

Company Name: Council on Environmental Quality

Fax Number: (202) 456-2710

From: Mr. Greg Lebedev, President and Chief Executive Officer

Description: A letter, addressed to Secretary Spencer Abraham, Secretary of Energy, transmitting the attached "US Chemical Industry Response to the President's Global Climate Business Challenge."

Number of pages (including cover): 24

Date Sent: 01/23/2003

Time Sent: 02:51:16 PM

If there are any problems with this transmission please call: (703) 741-5917

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GREGORI LEBEDEV
PRESIDENT AND
CHIEF EXECUTIVE OFFICER



January 23, 2003

The Honorable Spencer Abraham
Secretary of Energy
Department of Energy
100 Independence Avenue, SW
Washington, DC 20585

Dear Secretary Abraham:

On behalf of the American Chemistry Council (ACC), I am pleased to transmit the attached "US Chemical Industry Response to the President's Global Climate Business Challenge." This voluntary commitment has been approved by our Board of Directors, pursuant to President Bush's call for an American industrial response to the issue of global climate change. We applaud President Bush's leadership in harnessing the entrepreneurial spirit of the US private sector in addressing this significant issue.

ACC members are proud to do their share to help the President and the country achieve the overall 18 percent reduction in greenhouse gas intensity by 2012, as called for in the Business Challenge. In 2001, the US chemical industry had nearly half a trillion dollars in sales, and half of that was of products that are hydrocarbon-based. The business of chemistry is energy-intensive, and is unique because it uses energy both in the manufacturing process and also as a raw material. No other industry adds as much value to its energy inputs as the business of chemistry.

Energy efficiency and greenhouse gas intensity reduction are not new to the chemical industry. As you know, we have reduced the fuel and power energy consumed per unit of output by 41 percent since 1974. Carbon emissions per unit of output have declined by more than 45 percent during the same period. The efficient use of energy has been an economic imperative of the chemical industry

The Honorable Spencer Abraham

January 23, 2003

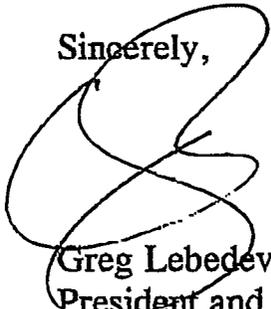
Page 2

for decades, driven by the need to compete globally and the desire to constantly improve our operations.

The centerpiece of our 12-part response to the President's Global Climate Business Challenge is to pursue reductions in greenhouse gas intensity toward an overall target of 18 percent by 2012, using a baseline of 1990. From 2003 through 2012, the ACC will collect data directly from members to measure progress. But that's not the only way our intensity will help the country achieve its intensity reduction target. We also pledge to continue to manufacture products and pursue innovative new ways to help other industries and sectors achieve the President's goal. We plan to work with the government, through the Department of Energy, to develop a credible methodology for estimating greenhouse gas efficiency improvements in sectors of the economy that use chemical industry products. Our response also highlights areas in which government policy can assist in achieving designated greenhouse gas intensity reductions.

We look forward to working with the Department of Energy and the Administration in implementing this commitment. We also look forward to participating in the February 6 White House event and would be interested in a speaking role. If you have any questions, please feel free to contact ACC Vice President of Federal Relations, Mark Nelson, at (703) 741-5900.

Sincerely,



Greg Lebedev
President and
Chief Executive Officer

cc: The Honorable James L. Connaughton, Chairman
Council on Environmental Quality

U.S. Chemical Industry Response to the President's Global Climate Business Challenge

EXECUTIVE SUMMARY

On February 14, 2002, President George W. Bush committed the nation to “cutting greenhouse gas intensity – how much we emit per unit of economic activity – by 18 percent over the next 10 years.” As part of that commitment, he challenged American businesses to further reduce emissions. This paper contains the response of the members of the American Chemistry Council to that challenge.

The U.S. chemical industry had \$454 billion in sales last year, and half of that was of products that are hydrocarbon based. Obviously, it's an energy-intensive industry, but it's unique because it uses energy in the manufacturing process and also as a raw material. While using natural gas, natural gas liquids, oil, coal and electricity to power its plants and processes, it also draws upon those same energy sources as the primary ingredient in the products we use every day. No other industry adds as much value to its energy inputs as the business of chemistry.

The U.S. business of chemistry has reduced the fuel and power energy it consumes per unit of output by 41 percent since 1974. Carbon emissions per unit of output have declined by more than 45 percent during the same period. The efficient use of energy has been an economic imperative of the chemical industry for decades, driven by the need to compete globally and the desire to constantly improve our operations.

ACC members have had the opportunity to take part in a number of programs that have helped to achieve these savings since the mid-1970s. Among them:

- ACC's Climate Action Program – where each ACC member is encouraged to inventory and examine greenhouse gas emissions and take measures to reduce them.
- ACC's voluntary annual Energy Efficiency and Greenhouse Gas Emissions Survey – which collects data from members that ACC compiles yearly. ACC then shares aggregate indicators of energy consumption, efficiency and greenhouse gas intensity with the public through the Department of Energy.
- ACC's Energy Efficiency Awards Program – which recognizes companies for energy efficiency achievements.

Along with compiling their own record of energy efficiency and greenhouse gas intensity improvement, ACC's members also have been developing and bringing to market products that help other industries do the same. For example, refrigerators and other

appliances are far more energy efficient today than a generation ago. That's largely because insulation materials, made from chemicals derived from oil and gas, have dramatically reduced the electricity needed to run them. The same is true for automobiles, where parts and engine equipment made from the same type of chemicals, make them lighter, increasing their energy efficiency. Chemicals also make today's cars more durable.

The ways we heat and cool our homes are more efficient, economical and environmentally friendly thanks to chemical products. Chemical insulation material wrapped around houses as they're being built, along with paints and coatings, offer a protective envelope that keeps out water, moisture and air. The Department of Energy projects that the areas with the largest increases in associated CO2 emissions from 2000 to 2020 are the transportation and buildings sectors. Chemical industry products that improve the energy efficiency for these sectors will contribute greatly to U.S. efforts to achieve greater greenhouse gas intensity reductions.

While members of the American Chemistry Council have made and will continue to make their best efforts to achieve greenhouse gas intensity reductions, government can help by removing barriers that impede efficiency upgrades and by providing incentives for companies to implement state-of-the-art technology. Without an aggressive government role in removing barriers to progress and providing incentives, it will be difficult, if not impossible for the business of chemistry to do its share to reach the president's goal of reducing national greenhouse gas intensity by 18 percent during the 2002-2012 timeframe.

The Response

As its response to the president's Global Climate Business Challenge, members of the American Chemistry Council commit to:

1. Pursue additional reductions in greenhouse gas intensity toward an overall target of 18 percent by 2012, using 1990 emissions intensity as the baseline. Government data shows that from 1990 to 2000, with projection to 2002, the U.S. chemistry business will reduce its greenhouse gas intensity by 12 percent. From 2003 through 2012, ACC will collect data directly from members to measure progress. Greenhouse gas intensity for the business of chemistry is the ratio of net greenhouse gas emissions to production.
2. Continue to manufacture products and pursue innovative new ways to help other industries and sectors achieve the president's goal. ACC will work with the government to develop a credible methodology for estimating the greenhouse gas efficiency improvements in sectors of the economy that use chemical industry products.

3. Provide valid and reliable data ensuring that greenhouse gas intensity reduction numbers are complete, transparent, and cover actual conditions. ACC also will work with the Department of Energy to develop consistent definitions and methodologies for its voluntary emission reduction and sequestration registration program under section 1605(b) of the 1992 Energy Policy Act. In addition, ACC will support efforts of the Administration to provide appropriate recognition to businesses and industries for voluntary actions that are taken in 2003 and beyond to reduce greenhouse gas intensity.
4. Provide regular reports to the public and the government on progress. Member-wide reports will be made annually to the Department of Energy and contain what we're doing, how we're doing, difficulties encountered and suggestions for improvement when reporting within the 1605(b) process. ACC will participate and provide data for the duration of the program and also encourage members to provide data directly to the government through the 1605 (b) voluntary emission reduction program.
5. Make participation in the ACC reporting program a condition of membership through the recently revamped Responsible Care® performance improvement initiative to strengthen energy efficiency and environmental performance. Among the proposed new "metrics" is public reporting of aggregated energy efficiency and greenhouse gas emissions.
6. Develop an ACC member education and mutual assistance program -- including open workshops -- to share methodologies and best practices to achieve greenhouse gas intensity reductions. This information also would be made available to other energy users.
7. Support activities that increase our understanding of greenhouse gas intensity as it relates to our products and processes by:
 - Participating in new and continuing research and development activities.
 - Providing expertise on priorities for taxpayer-funded research to assess the value of CO₂ and other greenhouse gases for new processes and products as well as sequestration opportunities.
 - Educating customers on greenhouse gas and energy emission reduction benefits of chemical products.
8. Encourage chemical manufacturers that are not members of ACC to join our program or to make their own commitment.
9. Work with and support the Administration and Congress to implement legislation and regulations that enhance industry's ability to install and operate new technologies and equipment that can increase energy efficiency and reduce greenhouse gas emissions and enhance industry's ability to compete in the global marketplace. An example of this cooperative effort is implementation of the Administration's New Source Review reforms.

10. Work with and support the Administration, Congress and the Federal Energy Regulatory Commission to implement legislation and regulations that enable even greater application of highly efficient CHP equipment without prohibitive market access restrictions.
11. Promote the further development and deployment of coal gasification technology. ACC members also will promote cost-effective, renewable energy resources, as well as bio-based processes and product recycling in the chemical industry.
12. Encourage our employees to practice energy conservation by stepping up education efforts concerning energy savings at work and at home.

U.S. Chemical Industry Response to the President's Global Climate Business Challenge

Background

The U.S. chemical industry agrees with President George W. Bush in his approach to address the challenge of global climate change. His method, "designed to harness the power of markets and technological innovation," fits perfectly with the philosophy of the business of chemistry, which is made up of problem-solving companies providing solutions to make a better, healthier and safer world through chemistry. This paper contains the industry's response to the president's Global Climate Business Challenge, issued February 14, 2002.

The U.S. chemical industry had \$454 billion in sales last year, and half of that was of products that are hydrocarbon based. It is one of the nation's keystone industries. The industry uses the science of chemistry to produce tens of thousands of innovative products and services that make people's lives better, healthier and safer. Among those products are life-saving medicines, health improvement products, technology-enhanced agricultural products, improved foods, more protective packaging materials, synthetic fibers and permanent press-clothing, longer-lasting paints, stronger adhesives, faster microprocessors, more durable and safer tires, lightweight automobile parts, and stronger composite materials for aircraft and spacecraft.

Along with being the world's largest chemical manufacturer, the U.S. business of chemistry is also the nation's largest exporter and has consistently turned in a positive trade balance. It is a research and development-driven industry, and accounts for one out of every seven patents issued in this country each year. It employs more than a million workers directly, and also contributes to the employment of more than five million others in downstream industries. The industry is guided by Responsible Care[®], a safety, health and environmental performance improvement initiative that represents the ethical framework for its operations.

The business of chemistry is an energy-intensive industry, but it's unique because it uses energy in the manufacturing process and also as a raw material. While using natural gas, natural gas liquids, oil, coal and electricity to power its plants and processes, it also draws upon those same energy sources as the primary ingredient in the products we use every day. No other industry adds as much value to its energy inputs as the business of chemistry.

Using energy natural resources as a raw material is essential to the U.S. economy. In fact, the chemical industry's use of these resources in its products has actually helped make other industries and the nation more energy efficient. For example, energy resource-derived materials from the chemical industry have made refrigerators and other appliances far more energy-efficient, automobiles lighter, and more energy efficient, and home heating and cooling more efficient, economical and environmentally friendly.

The U.S. business of chemistry has reduced the fuel and power energy it consumes per unit of output by 41 percent since 1974. Carbon emissions per unit of output have declined by more than 45 percent during the same period. The efficient use of energy has been an economic imperative of the chemical industry for decades, driven by the need to compete globally, and the desire to constantly improve our operations.

One important way the industry has accomplished these improvements is through the use of combined heat and power (CHP) technology, which was first used in the industry during the 1920s. CHP units produce steam and electricity together and attain double the fuel efficiencies of a typical electric utility power plant. Along with reducing the amount of energy used per unit of output, these facilities also have led to a large reduction in carbon emissions per unit of output. The industry also has been successful in reducing other greenhouse gases.

This paper looks at the industry's performance record to date in increasing energy efficiency and decreasing greenhouse gas intensity and also focuses on the enabling role the industry plays in creating products that help other industries attain the same objective. Government barriers and incentives also are examined.

Building on a Solid Performance Record of Energy Efficiency and Greenhouse Gas Reduction

U.S. chemical companies are not new to measuring and improving greenhouse gas reduction intensity and energy efficiency. While the American Chemistry Council has developed this response to make voluntary commitments in meeting the President's "Business Challenge" on climate change, ACC members have had programs in these areas since the mid-1970s.

ACC's Climate Action Program, started in 1994, is based on a premise that differing circumstances within companies warrant individual members' evaluation of which greenhouse gas emissions reduction measures are most appropriate and achievable. Through the Climate Action Program, each ACC member is encouraged to inventory and examine greenhouse gas emissions and take appropriate and economically sound measures to reduce them. The companies also are encouraged to report those reductions through the "Voluntary Reporting of Greenhouse Gases 1605(b)" program, established by the Energy Policy Act of 1992.

Since 1989, ACC also has conducted a voluntary annual Energy Efficiency and CO₂ Emissions Survey. That survey collects data from members on their energy consumption based on purchased energy used for fuel, power and steam, and related CO₂ emissions; consumption of "feedstock," energy used as a raw material to produce a product; on-site produced fuel energy (mostly from byproduct energy streams); and other greenhouse gas emissions. ACC compiles that data and produces yearly aggregate indicators of the companies' energy consumption, energy efficiency and greenhouse gas intensity. The summary results of the survey are shared with the Department of Energy and other government agencies.

ACC also makes available and encourages members to take part in an Energy Efficiency Continuous Improvement Program. ACC voluntary guidelines assist companies in participating in energy efficiency efforts.

Since 1994, companies also have been able to take part in the ACC Energy Efficiency Awards Program. This program recognizes companies for their outstanding energy efficiency achievements. It also offers other companies examples of actions they could take to increase efficiency.

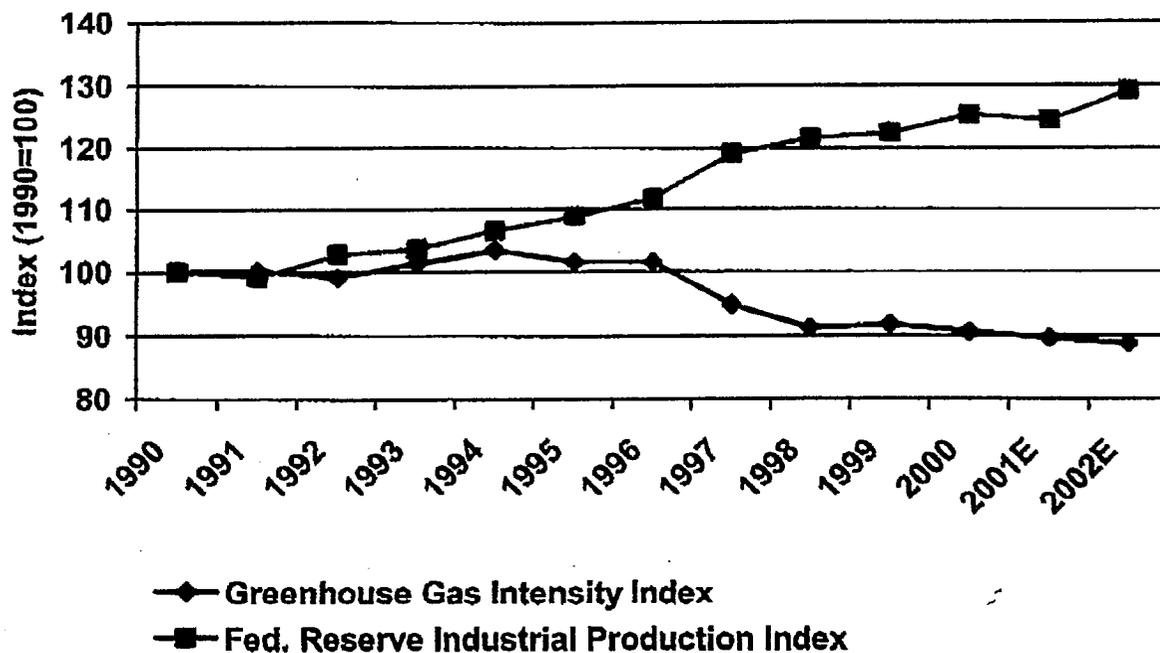
The industry recently revamped its Responsible Care[®] performance improvement initiative to strengthen energy efficiency and environmental performance. Among the proposed new "metrics" is public reporting of energy efficiency and greenhouse gas emissions.

The industry has a history of increasing energy efficiency and reducing greenhouse gas emissions. During the past 12 years, ACC members have made major investments,

conducted programs and looked for and taken advantage of opportunities to achieve those reductions and efficiencies. Because of that effort, and of special opportunities such as changes in production processes that have reduced nitrous oxide emissions, the industry is expected to achieve about a 12 percent reduction in greenhouse gas intensity emissions through 2002.

The chart below depicts greenhouse gas emission intensity since 1990. Performance to date required substantial R&D, improvements in process and energy technology and significant investment. Sustaining this level of improvement into the future will depend on substantial additional introduction of new technology and processes, removal of government barriers, and access to tax code incentives. In short, there is no such thing as "business as usual" for the chemical industry.

**Greenhouse Gas Emissions (GHG) Intensity
(GHG Emissions per Unit of Production)**



Footnote: To measure the intensity of greenhouse gas emissions in the chemical industry, it is necessary to use a denominator that measures changes in production. The ideal denominator would be pounds of production, however this data does not exist for our industry because of its diverse product base. The Federal Reserve calculates an "industrial production" index for the chemical industry that attempts to measure changes in production activity. The IP index measures changes in the physical quantity of production and where this data is unavailable, the index is based on changes in electricity consumption and production worker hours. ACC is using

this index to illustrate historical greenhouse gas intensity. Beginning in 2003, ACC will be making the measurement using internal data.

Enabling Other Industries to Improve Energy Efficiency and Decrease Greenhouse Gas Intensity

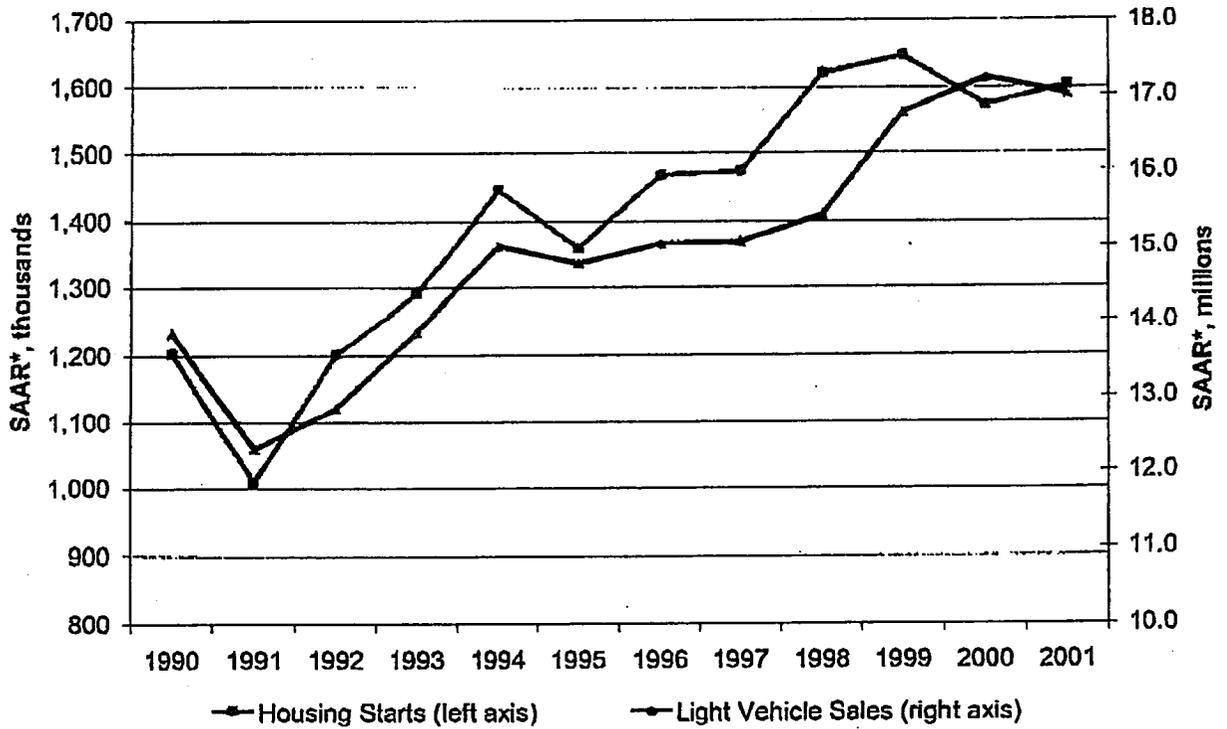
Refrigerators and other appliances are far more energy efficient today than a generation ago. That's largely because insulation materials, made from chemicals derived from oil and gas, have dramatically reduced the amount of electricity used to run a refrigerator. The same is true for automobiles. Body parts and engine equipment -- made from chemicals derived from oil, natural gas and natural gas liquids -- make today's cars lighter, increasing their energy efficiency. These chemicals also make the cars more durable than their predecessors.

Even the ways we heat and cool our homes are more efficient, economical and environmentally friendly thanks to chemical industry products. Common building products such as wood, brick or stucco don't completely prevent air and water from seeping into a home, making it harder to keep it cool in the summer or warm in the winter. But polyolefin fiber films and linear polyethylene, the insulation material wrapped around houses as they're being built, along with paints and coatings offer a protective envelope that keeps out water, moisture and air. Insulation, double-paned windows, window glazing, sealants and efficient heating and air conditioning systems are all produced through chemistry.

These are just some of the many ways that the business of chemistry is developing and commercializing sustainable, climate friendly products and technologies that help it and other industries reduce greenhouse gas intensity while improving energy efficiency. As a matter of fact, just one insulation product by one chemical company is responsible for saving more than five billion gallons of fuel oil since the beginning of the nation's energy crisis in the 1970s. That insulation product's use in U.S. housing construction has saved six million metric tons of carbon dioxide from being generated. That same company has developed products derived from corn that are used in a number of products, including paper and board coatings and pigments, paints, building products, bottles and food service packaging. Because these products recycle the Earth's carbon, they potentially reduce CO₂ in the atmosphere.

The Department of Energy/Energy Information Administration "Annual Energy Outlook 2002" report projects that the areas in the economy with the largest increases in associated CO₂ emissions over the period 2000-2020 are the transportation (1.9 percent per year) and buildings (residential - 1.1 percent per year and commercial - 1.8 percent per year) sectors. These two sectors have grown 23 and 33 percent respectively since 1990. Chemical industry products that improve the energy efficiency for these sectors contribute much to the U.S. effort to achieve greater greenhouse gas intensity reductions.

Growth in Light Vehicle Sales and Housing Starts



* Seasonally Adjusted Annual Rate
 Source: Department of Commerce

Opportunities for Government To Encourage Chemical Industry Greenhouse Gas Intensity Reductions

There are a number of opportunities for the government to help the chemical and other industries achieve desired greenhouse gas intensity reductions. These opportunities include removing barriers that impede efficiency upgrades, and providing incentives for companies to implement state-of-the-art technology.

For example, the Business Roundtable's July 1999 report, "*The Role of Technology in Responding to Concerns about Global Climate Change*," concluded that increased and widespread deployment of more energy-efficient technologies and developing new and breakthrough technologies constitute the most effective responses to concerns about global climate change.

Addressing U.S. and global needs for diverse energy and fuel supplies, as well as implementing energy efficiency improvements, are important to the members of the American Chemistry Council. ACC feels that near-term opportunities for accelerating the development, commercialization and global dissemination of advanced technology, especially combined heat and power (CHP), should be a part of the president's Business Challenge. Without an aggressive government role in removing barriers to progress and providing incentives, it will be difficult, if not impossible, for the business of chemistry to do its share to reach the president's goal of reducing national greenhouse gas intensity by 18 percent during the 2002-2012 timeframe.

Appendix I to this paper spells out the importance that the president's National Energy Policy places on the growth of CHP technology. The appendix also focuses on potential roadblocks to the president's plan for CHP growth and excerpts the National Energy Policy's support for combined heat and power.

Appendix II points out regulatory barriers that impede research, innovation and investment in new technology that the business of chemistry needs to meet its energy supply and economic growth.

Appendix III focuses on tax barriers that interfere with capital availability and utilization in the chemical industry, including investment in new plants and equipment, new processes and new technology. Improvements on the president's proposed tax incentives are presented.

Part of the current challenge in establishing a viable energy policy are unnecessary roadblocks brought about by environmental policy. To correct this, it is important to evaluate key federal, state and local agency decisions regarding administrative action, regulatory action, or compliance and enforcement action for its impact on energy supply, distribution or use. Current agency activity should undergo an extensive review for energy and fuel supply impact consistent with current law and the May 2001 Executive

adverse impacts on energy supply, transmission, distribution or use. This assessment should consider possible shortfalls in supply, impact on consumers and increased demand for foreign supplies. The secretary of energy should have the responsibility to comment on the validity of federal agency assessments before administrative or enforcement action is taken. States should provide direct input to the secretary of energy. Affected companies should be encouraged to file adverse energy effects statements with the secretary of energy as part of this process.

Unfortunately, some taxpayer-funded government initiatives have the potential to be weighed down by inertia and special interests, which can make it difficult for government to make mid-course corrections in research and development. To operate effectively within budget constraints, it is important for government to continuously re-evaluate the effectiveness of current programs. Input from the private sector representing manufacturing and deployment interests is crucial to this review so that more productive use of R&D funding occurs.

There should be an annual "audit" of ongoing federal research and development to justify funding, asking:

- Has the taxpayer funding resulted in improvements in the market viability for the technology?
- Has the program attracted a growing base of private participation, including manufacturing and deployment interests?
- Does the technology meet U.S. deployment needs?

Some tax incentives are designed without regard for effectiveness. Assuming a limited budget is available for tax support for the president's Climate Business Challenge, it is vital that a periodic evaluation be undertaken to assess the effectiveness of various incentives, including tax credits for purchase of equipment, to determine cost differences between technologies and exemptions from taxes.

Orders 13211 ("Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution and Use") and 13212 ("Actions to Expedite Energy-Related Projects").

The federal government should require that every agency action be evaluated for possible adverse impacts on energy supply, transmission, distribution or use. This assessment should consider possible shortfalls in supply, impact on consumers and increased demand for foreign supplies. The secretary of energy should have the responsibility to comment on the validity of federal agency assessments before administrative or enforcement action is taken. States should provide direct input to the secretary of energy. Affected companies should be encouraged to file adverse energy effects statements with the secretary of energy as part of this process.

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Appendix I: PRESIDENT'S POLICY ENCOURAGES AND REQUIRES COMBINED HEAT AND POWER GROWTH

The National Energy Policy (excerpted below) contemplates substantial growth in combined heat and power (CHP): an additional 124,000 megawatts at industrial facilities alone. The Public Utility Regulatory Policies Act has been successful in encouraging CHP capacity growth from 10,000 megawatts in 1980 to 55,000 megawatts currently, representing nine percent of electricity generation.

The U.S. Climate Change Strategy (excerpted below) contemplates a major role for CHP during the 2002-2012 timeframe. Achieving an 18-percent reduction in greenhouse gas emissions intensity in the industrial sector would be impossible if CHP were discouraged. New technology investments are needed now.

The National Energy Policy calls for a new CHP tax credit that will enhance efforts underway by the Environmental Protection Agency to streamline the permitting process for cogeneration plants and to promote CHP location at "brownfields" and other industrial sites.

WHAT ARE THE POTENTIAL ROADBLOCKS TO THE PRESIDENT'S CHP INITIATIVE?

There are a number of potential roadblocks to achieving the growth of CHP called for in the National Energy Policy, including:

- **Failure to sustain the Carper-Collins Public Utilities Regulatory Policies Act amendment in the energy bill legislative conference (HR4).**

The Carper Collins amendment to the Senate's energy bill does much to continue to preserve the incentives for CHP in monopoly utility markets. It must be retained in any final energy bill that contains electricity provisions. Any attempt to repeal PURPA without access to a truly competitive electricity market must be blocked.

- **Application of "Clear Skies" multi-pollutant requirements to CHP**

CHP plants already have provided substantial emissions reductions – in fact, they produce about one-half the emissions of central station plants. Since many CHP plants are fired by natural gas, there is no fuel-switching option. Many facilities also are in non-attainment areas already subjected to substantial current and future emissions constraints. Imposing the costs of additional regulation on facilities that may have marginal economics and have superior environmental performance is contrary to the National Energy Policy and the U.S. Climate Change Strategy.

NATIONAL ENERGY POLICY SUPPORT FOR COMBINED HEAT AND POWER

[Excerpted from the report of the National Energy Policy Group, May 2001, Chapter 3 – Protecting America's Environment: Sustaining the Nation's Health and Environment, Page 5]

Technologies for Improved Efficiencies

Two-thirds of the energy used in a conventional coal-fired power plant is wasted in the production of electricity. These losses can be minimized through a number of innovations, including installing high efficiency steam turbines, reducing steam leaks, and using software to optimize combustion efficiency. New coal-burning power plants can achieve efficiencies of over 40 percent using existing technology, and companies are developing even more efficient technologies. Wasted energy can also be recycled for use in industrial processes or for heating buildings.

A family of technologies known as combined heat and power (CHP) can achieve efficiencies of 80 percent or more. In addition to environmental benefits, CHP projects offer efficiency and cost savings in a variety of settings, including industrial boilers, energy systems, and small, building scale applications. At industrial facilities alone, there is potential for an additional 124,000 megawatts (MW) of efficient power from gas-fired CHP, which could result in annual emission reductions of 614,000 tons of carbon equivalent. CHP is also one of a group of clean, highly reliable distributed energy technologies that reduce the amount of electricity lost in transmission while eliminating the need to construct expensive power lines to transmit power from large central power plants.

[Excerpted from the report of the National Energy Policy Group, Chapter 4 – Using Energy Wisely: Increasing Energy Conservation and Efficiency, Page 9]

Because of their large needs for both heat and electricity, businesses find combined heat and power (CHP) systems particularly attractive. However, replacing old, inefficient boilers with highly efficient CHP systems may add a number of new regulatory requirements (such as air permits), but does not offer the same tax depreciation incentives the tax code grants to power plants.

Recommendations:

- The NEPD Group recommends that the President direct the Secretary of the Treasury to work with the Congress on legislation to encourage increased energy efficiency through combined heat and power (CHP) projects by shortening the depreciation life for CHP projects or providing an investment tax credit.
- The NEPD Group recommends that the President direct the Administrator of the Environmental Protection Agency (EPA) to work with local and state governments to promote the use of well-designed CHP and other clean power generation at "brownfield" sites, consistent with the local community's interests. EPA will also work to clarify liability issues if they are raised at a particular site

- The NEPD Group recommends that the President direct the EPA Administrator to promote CHP through flexibility in environmental permitting.

U.S. Climate Policy Support for Combined Heat and Power

National Goal

[Excerpted from U.S. Climate Change Strategy, A New Approach, February 14, 2002, Pages 6-7]

The President set a national goal to reduce the greenhouse gas intensity of the U.S. economy by 18 percent over the next ten years. Rather than pitting economic growth against the environment, the President has established an approach that promises real progress on climate change by tapping the power of sustained economic growth.

- The Intensity Based Approach Promotes Near-Term Opportunities to Conserve Fossil Fuel use, recover Methane, and Sequester Carbon. Until we develop and adopt breakthrough technologies that provide safe and reliable energy to fuel our economy without emitting greenhouse gases, we need to promote more rapid adoption of existing, improved energy efficiency and renewable resources that provide cost effective opportunities to reduce emissions

Incentives and Programs for Renewables and Industrial Cogeneration

[Excerpted from U.S. Climate Change Strategy, A New Approach, February 14, 2002, Page 11]

The President's FY '03 budget proposes providing \$4.6 billion in clean energy tax incentives over the next five years (\$7.1 billion over ten years) for investments in renewable energy (solar, wind, and biomass), hybrid and fuel cell vehicles, cogeneration, landfill gas conversion, and ethanol. These incentives are important to meeting the nation's long-term energy supply and security needs, and reducing pollution and projected greenhouse gas emissions. These clean energy tax incentives include:

- **New 10 Percent Tax Credit for Co-Generation (Combined Heat and Power Systems).** The President has proposed a new 10 percent tax credit for investments in combined heat and power systems between 2002 and 2006. The credit will encourage investments in highly efficient CHP projects and spur innovation in improved CHP technologies. No income tax credits are currently available for investment in CHP property.
- **Cogeneration.** Combined heat and power (CHP), also known as "cogeneration", is a highly efficient form of electric generation that recycles heat, which is normally lost under traditional power combustion methods. CHP captures the heat left over from industrial use, providing a source of residential and industrial heating and air conditioning in the local area around the power plant. CHP systems achieve a

greater level of overall energy efficiency, thereby reducing energy consumption, costs, and carbon emissions.

- **EPA Combined Heat and Power Partnership.** The new tax credit would enhance efforts underway by the Environmental Protection Agency to streamline the permitting process for cogeneration plants, promote their location in Brownfields and other industrial sites, and clarify how companies can use cogeneration to stay in compliance with Clean Air Act pollution standards. On October 5, 2001, in partnership with 17 Fortune 500 companies, city and state governments and nonprofits, EPA announced the Combined Heat and Power Partnership. Current CHP projects of the founding partners represent more than 5,800 megawatts of power generating capacity, an amount capable of serving almost 6 million households. The projects annually reduce carbon dioxide by more than 8 million tons; the annual energy savings equal 19 million barrels of oil. A similar program by the Department of Energy challenges the heat and power industry to double usage of cogeneration in the United States by 2010.

Appendix II: REGULATORY BARRIERS

The Council supports reasonable regulations that result in environmental improvements. However, many current environmental regulations impede research, innovation and investment in new technology needed to meet the nation's energy supply and economic growth needs, while producing limited environmental benefit.

A leading example of a regulatory barrier that discourages technological innovation is the New Source Review program. This program was originally intended as a pre-construction permitting program aimed at requiring major stationary sources to install state-of-the-art air pollution controls when the source builds new plants or makes major "non-routine" changes that result in significant increases in emissions at existing operations. This program has deviated significant and detrimentally from its original intent.

EPA announced its proposed reform of New Source Review June 3, 2002. In it, EPA Administrator Christine Todd Whitman correctly recognized that "some aspects of the NSR program have deterred companies from implementing projects that would increase energy efficiency and decrease air pollution." EPA's recommendations seem to address many of the concerns that have been raised about the NSR program. It is important that EPA expeditiously implement these proposals through both final rules and proposed rules. Any further delay will only exacerbate the challenge the industry faces in making the investments that will help achieve the intensity improvements expected by the President. ACC commits to work with and support the Administration and Congress to implement legislation and regulations that enhance industry's ability to install and operate new technologies and equipment that can increase energy efficiency and reduce greenhouse gas emissions, thus enhancing the industry's ability to compete in the global marketplace.

Companies that have made substantial investments are disadvantaged in the market when regulatory policies are changed in mid-stream. In the late 1990's, EPA reversed 20 years of policy guidance on New Source Review requirements to pressure companies to accept requirements not contemplated in the authorizing legislation. This undermines industry's ability to invest in new technologies, including many technologies that would improve energy supply, fuel supply and energy efficiency while reducing emissions. Concurrent with EPA's changed regulatory interpretations on the NSR program, it has undertaken an enforcement initiative that relies heavily on their reinterpretations. The threat of future enforcement action had created a chilling effect on the pursuit of energy improvement projects.

Several steps should be taken to improve the existing NSR program:

- EPA should implement its existing regulations in a clear and consistent manner that avoids triggering NSR/PSD permitting requirements for changes necessary to

maintain and repair existing units, for changes that result in energy efficiency improvements, or changes that do not increase emissions.

- All "routine maintenance, repair and replacement" activities must be exempt from the scope of NSR. EPA should retract its recent changes to the interpretation of this regulatory exemption and return to the broader, common sense approach followed from 1980 through the mid-1990s. EPA should also provide further clarification, by industry sector, on what activities constitute routine maintenance, repair, and replacement.
- Projects that generate environmental benefits should be explicitly exempted from the NSR program. This exemption should include projects that increase the energy efficiency of operations.
- In addition to the above administrative changes and regulatory reforms, EPA should facilitate permits that move away from project-by-project reviews to facility-wide emissions, providing complete flexibility to make changes within the permitted emissions.

Other regulatory barriers that discourage technology innovation include:

- Technology-based regulations preventing "netting" and other forms of performance-based regulation.
- Inconsistent enforcement among regulatory agencies and
- Inadequate scientific and economic bases for regulations.

Regulatory barriers often create disincentives or obstacles to adopting more energy-efficient technologies that reduce total emissions. These barriers include:

- Inclusion of combined heat and power in new multi-pollutant proposals, e.g., Clear Skies.
- Technology-specific air quality standards.
- Possible regulation of CO₂ emissions.

Appendix III: TAX BARRIERS

As currently written, the U.S. tax code does not always support capital formation, including investments in manufacturing plant and equipment and new process and product technologies. While the President's initiative has proposed tax incentives for CHP, unless depreciation life is shortened, the necessary incentives will not be provided.

The burden is especially difficult for many energy supply and energy-efficiency investments that are also constrained by government regulations, trade laws and limited market demand.

There are several issues with the R&D tax credit that should be addressed as part of a national climate and energy policy initiative, including:

1. On-Again-Off-Again Nature of the R&D Tax Credit

Because the R&D tax credit has a history of unpredictable and short-term extensions, companies have not been able to fully take advantage of its benefits.. Currently, the credit is scheduled to expire on June 30, 2004. The uncertainty created by the pending expiration is particularly troublesome for investors in long-term breakthrough technologies. Their inability to rely on the credit impedes technological progress. The solution to this problem is straightforward: Make the R&D tax credit permanent.

2. Limitations and Inconsistencies in the R&D Tax Credit

The rules and exceptions that determine the availability of research and development tax credits are highly complex. Rules that limit such tax credits to incremental expenses over a base period amount and to a percent of gross receipts serve to reward some R&D activities but not others.

In order to qualify for the credit, a company's R&D outlays in the current year must exceed a base period hurdle that takes into account the company's historical expenditures and gross revenues. Because the base amount is tied to gross receipts, the amount of the credit can be affected as much by changes in the level of revenues as it is by the level of research performed. The current R&D credit has the unintended effect of encouraging high-cost, manual research and development, while discouraging its replacement with more efficient, technological, and math-based R&D procedures. In addition, firms in mature industries can face ever-declining credits if their R&D outlays level off while their sales revenues increase in nominal terms due to inflation.

Solutions to this R&D tax issue include:

- Allow R&D tax credits for every dollar of research expense incurred for energy and energy efficiency-related technology – not just for the increment over some arbitrary base period amount.
- Eliminate the disparity between qualifying costs for contractors versus company employees.
- Make the credit refundable or transferable among taxpayers.

3. Tax incentives for energy efficiency, research and development are inadequate, but some steps can be taken to address the problem, including:

- Provide enhanced tax credits focused specifically on promoting research and development on breakthrough energy-efficiency technologies for plant and equipment.
- Provide additional incentives and support for long-term public-private research partnerships.

Congress should take the following actions to address the depreciable lives barriers as described in a study on energy and energy-efficiency related investments by the American Council on Capital Formation (ACCF):

- Dramatically shorten the period during which businesses write off investments in energy or energy efficiency (combined heat and power) related investments to reflect the risks to investors and the benefits to society.
- Create a U.S. capital acquisition deduction, similar to that in European countries, for energy-efficient plants and equipment.
- Reinstate the Investment Tax Credit for energy-related investments.
- Stop treating accelerated depreciation and amortization of energy-related investments as preferences for AMT purposes.

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MTG



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01/24/2003 10:22:47 AM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: January 30 Interagency Working Group on Climate Change Science and Technology Meeting

Attached for your review is the agenda for the Interagency Working Group on Climate Change Science and Technology meeting being held Thursday, January 30, 10:00-12:00 PM in room 4830 at the Department of Commerce . I am also attaching a draft program plan for bi-monthly meetings throughout the year. I will solicit your comments on this proposed schedule at the meeting on the 30th.

I look forward to seeing you next week.

Sam

(See attached file: Agenda IWGCCST Mtng 30Jan2003.doc)(See attached file: IWGCCST Meeting Plan Draft.doc)



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01/24/2003 10:22:47 AM

BC,
please get this in
Jim's binder for
Thursday.
Thanks,
Phil

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Interagency Working Group on Climate Change Science and Technology

Thursday, January 30, 2003, 10:00 a.m. to Noon
Department of Commerce, Rm. 4830

Agenda

10:00	Call to Order	Dep Sec Bodman, DOC
10:05	Legislative/Policy Update	Chairman Connaughton, CEQ
10:20	International Update, including COP 9 preview	Asst Sec Turner, State
10:35	Earth Observation Summit	U/S Lautenbacher, DOC
10:45	Science Update	Asst Sec Mahoney, DOC
11:00	Technology Update	CCTP Dir Conover, DOE
11:15	1605(b) Update	U/S Card, DOE
11:25	Management and Budget – FY2003 Appropriations and FY2004 Rollout	Assoc Dir Peacock, OMB
11:35	Discussion of draft annual meeting schedule	Dep Sec Bodman, DOC
11:45	Other Topics and General Discussion	Dep Sec Bodman, DOC
12:00	Adjourn	

Draft for comment at the January 30, 2003 IWGCCST meeting

Interagency Working Group on Climate Change Science and Technology

Planned Meeting Dates for 2003

Commerce Deputy Secretary Sam Bodman, Chair
Energy Under Secretary Bob Card, Vice Chair

- All meetings are scheduled for Thursdays from 10:00 a.m. to 12:15 p.m., at locations to be announced prior to each meeting.
- Agendas and briefing notes will be circulated to Working Group members one week prior to each meeting.

MEETING DATE	EXTERNAL* TOPIC	SUGGESTED PRESENTER(S)	KEY INTERNAL TOPIC	SUGGESTED PRESENTER(S)
January 30, 2003**	None	N/A	Management and Budget (FY2003/FY2004)	TBD
March 27, 2002	Decision Support Analyses	Jake Jacoby, MIT	Voluntary Emission Program – Government Update	Robert Card, DOE Linda Fisher, EPA
May 29, 2003	Voluntary Emission Program – User Perspectives	Sir Mark Moody-Stewart, Ex-Shell	Earth Observation Summit	Greg Withee, NOAA Ghassem Asrar, NASA
July 24, 2003	IPCC Update	R.K. Pachauri, IPCC	Budget (FY2005)	James Mahoney, NOAA David Conover, DOE
September 18, 2003	UNFCCC Update	Ms. Joke Waller-Hunter, UNFCCC	Technology Program – Government Update	David Conover, DOE
November 20, 2003	Private Sector Sponsorship of Technology Development	Lynn Orr, Stanford University	Preparation for COP 9	Paula Dobriansky, State

*The order of External Topics may change

**The January 30, 2003, meeting will adjourn at noon

Questions about the schedule and agendas should be directed to:

1. Ms. Stephanie Harrington (CCSP professional staff assistant to Dr. Mahoney)
202-482-1944, or email to Stephanie.Harrington@noaa.gov
1. Ms. Pat Thorne (executive assistant to Dr. Bodman)
202-482-8376, or email to Pat.Thorne@doc.gov

Draft for comment at the January 30, 2003 IWGCCST meeting

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-EXECUTIVE OFFICE OF

COUNCIL ON
ENVIRONMENTAL
QUALITY

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Washington, DC 20503

PHONE: (202) 456-6224
FAX: (202) 456-2710

TO:	James Mahoney		
FROM:	Phil Cooney		
DATE:	1/24/03	PAGES:	2
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ENVIRONMENTAL
QUALITY**

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EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY

Phil Cooney

FYI.

Act

U.S. Climate Partnership Association

USCPA 2003 Members

Alcan, Inc.

American Honda Motor Co., Inc.

Cinergy Corp.

General Motors Corporation

Pfizer Inc

We Energies

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EPA Climate Leaders GHG Inventory Protocol: Design Principles

Position and Comments on Specific Issues

USCPA supports the EPA Climate Leaders Program as a demonstration of industry-level commitment to voluntary initiatives.

USCPA supports voluntary reporting of greenhouse gas emissions (GHGs) to the DOE 1605(b) Registry. USCPA believes that mandatory reporting, at the state or federal levels, is unnecessary and may be needlessly burdensome.

USCPA companies are committed to reporting GHG emissions and we will work to encourage others to report as well. To be effective in building a broad base of reporting among U.S. companies, however, guidelines should be established that are consistent, transparent, accurate, verifiable, and relevant to optimizing the energy and process efficiency of companies' business operations.

The EPA GHG Inventory Protocol is asserted by EPA on page 7 of their document to be a set of "Relevant, Complete, Consistent, Transparent, and Accurate" GHG reporting guidelines. USCPA is inclined to agree. It should also be noted, however, that the EPA GHG Inventory Protocol is NOT a GHG REGISTRY and should not attempt to assume that responsibility or provide for the creation and transfer of GHG credits. Instead, USCPA is working with DOE as it undergoes the process of modification of its Registry to provide guidelines for accurate and verifiable reporting and to enable the transfer of GHG credits. (Refer to Page 2-3: Data Confidentiality Section.)

USCPA believes that the EPA GHG Inventory Protocol (as GHG Reporting guidelines) would be consistent with our current understanding of the DOE's intentions regarding the level of transparency, accuracy and verifiability required to enable the transfer of GHG credits. But more to the point, USCPA believes that the EPA guidelines for reporting GHG emissions should be coordinated with and compatible with the revisions being developed for the DOE 1605(b) GHG Registry.

USCPA members will be working closely with the DOE to update and modify the 1605b GHG reporting guidelines such that they reflect "Relevant, Complete, Consistent, Transparent, and Accurate" criteria and enable the transfer of GHG credits from a voluntary multi-tiered GHG registry...a registry that allows buyers and the sellers to negotiate the price of carbon per transfer rather than mandatory caps.

1. USCPA supports a coordinated national reporting system rather than individual state reporting systems to avoid the following:

- Multiple state-level reports**
- Potential proliferation of non-uniform reporting approaches**
- Revealing competitive information, especially in those states where business has only one facility**

USCPA does not believe that individual state reporting programs or state level reporting are necessary or worthwhile. In fact, they are likely to be highly problematic. (It is worth noting that a national reporting system could disaggregate company data totals to provide state-level data, by expanding the existing tools within the data reporting spreadsheets to collect state-level information. USCPA discourages such state level aggregation, but it is feasible without having to implement individual state level reporting. This could be done under the existing 1605(b) confidentiality clause.)

2. USCPA comments regarding verification and certification:

- GHG reporting under the existing DOE 1605(b) Protocol must remain consistent, transparent, accurate, verifiable, and relevant to optimizing the energy and process efficiency of business operations.**
- Internal verification and certification of data reported by a registered professional engineer (P.E.) or an officer of the company should continue to be permitted.**
- 3rd party certification/verification should not be required at the time of reporting.**
- 3rd party certification/verification should occur at the time when the reporting company wants the credits to become fungible.**

USCPA is unclear about EPA's position regarding 3rd party verification, because the verbiage at various points in the document seems to suggest different approaches. Page 47 states that verification is "optional but recommended," but at other points the EPA text seems to indicate that it should be required. In any event, USCPA believes that "3rd party certification/verification should not be required at the time of reporting." (see bullet #3 above)

The EPA cites on page 38 (Level 2 Reporting) that each company "provide information for each of their facilities separately." USCPA does not support this based on the items listed above. Reporting this data may be cumbersome, burdensome, and in some cases reveal facility specific information that could be used by a competitor.

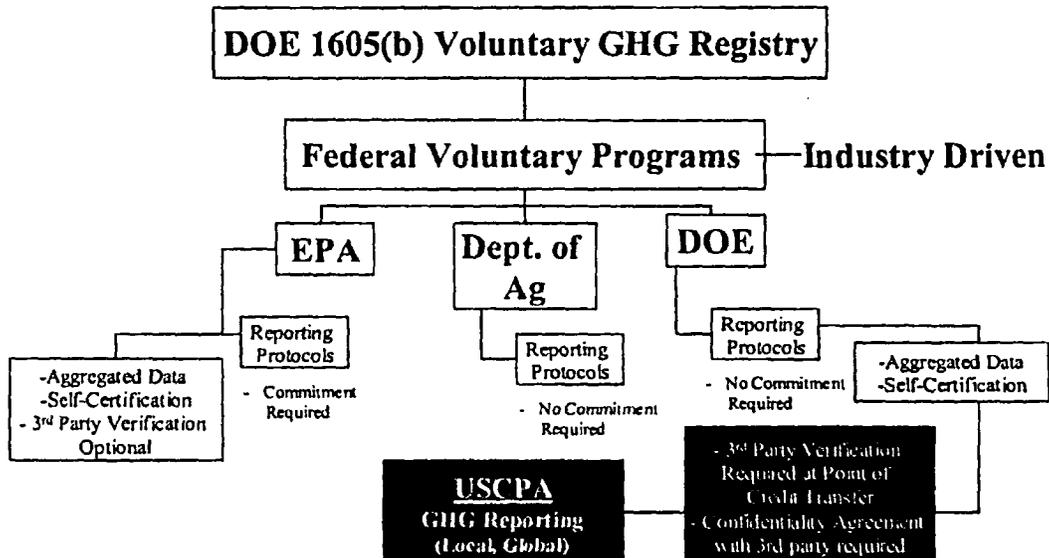
USCPA supports rolling-up the facility data to the corporate level and will share, only under a confidentiality agreement, facility level data with a 3rd party at the point when the reporting company is requesting the transfer of credits. (page 16)

3. USCPA comments regarding data confidentiality:

- Both the EPA Climate Leaders Program and the DOE 1605(b) Registry are voluntary programs that should not require facility level or source level data in order to evaluate progress in the reduction of GHG emissions.
- The EPA Climate Leaders Program and the DOE 1605(b) Registry should protect the reporting company by only requiring the reporting of corporate- level (or aggregated) GHG intensity.
- Data confidentiality should be preserved between the reporting company and the voluntary government program. A 3rd party should not be required at the point of reporting GHG emissions. A 3rd party will be required at the point when the reporting company requests certification and verification of their absolute facility-level GHG emissions for purposes of emissions trading.

The illustration shown below indicates a few of the existing government voluntary programs (clear boxes) capable of reporting up to the DOE 1605(b) Registry. The blue box indicates those areas under development within the 1605(b) GHG reporting guidelines and registry. The green box illustrates an example of a trade organization taking action to support the Administration's GHG reduction target for 2010.

Data Confidentiality Flow Chart



Data Accessibility Flow: Top to Bottom of Illustration

Voluntary Programs (EPA, DOE – At either the state or federal levels)

- (Clear Boxes) Aggregated Data: Corporate Level
 - accessible to Climate Leaders, 1605(b), public
 - (Blue Box) Facility Level Data
 - accessible to 3rd party verifiers/certifiers only via legal Instruments (i.e. confidentiality agreement)
 - prevent FOIA reach-through by regulators, NGOs, etc
 - offer companies an option to establish a verified baseline...insurance against a potential mandatory future
-

4. USCPA believes GHG emissions should be reported for those facilities under management control. Management control means at least a 50% equity position, management of the operation, and/or at least 50% representation on the board. However, where a company enters into a documented agreement with the other partners for reporting of emissions, that method should be used to ensure consistency of entity reporting. The partner companies must ensure the lack of double counting.

- Full-Ownership = Management Control
- Joint Ownership: report if greater than 50% ownership or board representation
- Leased Facility: report if greater than 5% of the annual facility total GHG emissions is attributable to operations of the Climate Leaders Partner company.

USCPA supports reporting based on management control as cited above and does not support percentage equity position reporting (The EPA's Organizational boundaries-pages 10-15.) USCPA also supports a materiality position on emissions as greater than 5% of facility emissions.

USCPA does not support the reporting of (1) Employee Business Travel, (2) Transportation of Materials, Products, Waste, and Employees, (3) Employee Commuting, or (4) Production of Imported Materials, (see EPA Operational Boundaries page 18.) USCPA agrees with EPA's statement in the Protocol that the identification and calculation of GHG emissions in these categories can be "highly inaccurate" due to the fact that the calculations must use "best engineering judgment" and other techniques that systematically multiply inaccuracies to determine a CO₂e total per the respective category.

The EPA should not advocate the reporting of "highly inaccurate" data. (page 22). USCPA members certainly would not want to use "inaccurate" or misleading data to establish their baseline.

USCPA also does not support the use of Vehicle Miles Traveled (VMT) as an accurate and/or representative emissions indicator for travel purposes due to the following:

VMT misrepresents the calculation of total GHG emissions-See *Climate Leaders Greenhouse Gas Inventory Protocol: Direct and Indirect Emissions from Mobile Combustion Sources*

- For Example: A duty cycle of 10 miles may take 10 minutes on an expressway going 65 mph without traffic. It may also take 1 hour to travel 10 miles. The GHG emissions from each of the two scenarios are completely different.
 - Rather than using VMT, the accurate calculation should be based on the total gallons of fuel consumed over a period of time (annually). The federal government tracks annual fuel usage per type of fuel.
5. USCPA suggests the following for the reporting of Indirect Electricity Emissions: Report electricity emissions based on a weighted average of state electricity usage and state electricity emissions factors for a designated year. The weighted average emissions factor for electricity should be held constant over all reported years to eliminate a variable outside of the control of the reporting entity.

USCPA does not support resetting the weighted emissions factor each year as stated in the EPA Core Module: Indirect Emissions from Purchases/Sales of Electricity and Steam. USCPA does support using E-grid or other regional CO2 emissions factors for the purchase of electricity.

6. USCPA supports the use of EIA emission factors for all fuels used in the U.S. except landfill gas and renewable electricity.
- Use an emissions factor of zero for landfill gas and other renewable energy sources to reflect the effect of offsetting emissions from conventional energy sources, or of offsets derived from landfill-gas-to-energy projects. [As a recommendation, this issue should be embellished and clarified.]
 - If a facility changes its energy mix, then that should be recognized in the reporting...otherwise this would remove incentive to use greener power.
7. USCPA supports GHG emissions represented as intensity (i.e tons CO2 per unit produced).
8. USCPA supports reporting of reductions and carbon sequestration from projects and suggests that the protocol comprehend all national and international projects achieving emission reductions and carbon sequestration.

U.S. Climate Partnership Association

Comments on EPA's

Climate Leaders GHG Inventory Protocol Core Module Guidance: Direct and Indirect Emissions from Stationary Combustion Sources

The United States Climate Partnership Association (USCPA) appreciates the opportunity to provide comments on the EPA Climate Leaders Greenhouse Gas Inventory Protocol Core Module Guidance for Direct and Indirect Emissions from Stationary Combustion Sources.

USCPA is a cross-industry trade association of companies dedicated to voluntary, cost effective action to reduce, avoid, sequester or offset greenhouse gas emissions. USCPA advocates sound voluntary climate policy and is committed to working with the government through ongoing federal programs to address reductions of GHG emissions. USCPA is committed to helping companies manage their greenhouse gas emissions by developing and sharing tools, information, knowledge and best practices in energy efficiency. USCPA believes that given the global events of recent months, it is appropriate that corporate America step forward and advocate pro-active and constructive voluntary approaches to address the challenges of global climate change.

USCPA recognizes the unique and necessary role that EPA is playing in encouraging positive action by responsible companies through the Climate Leaders Program and its other climate-related programs. Over the years EPA has demonstrated a strong capability and track record in developing and managing programs like the Climate Leaders Program and we strongly support EPA's role in this activity. USCPA also supports efforts of other federal agencies including the Department of Energy as they also work to meet the Administration's commitment to work with business to voluntarily reduce greenhouse gas emissions. As recognized by the Administration, the challenges of climate change are global and will require the cooperation and joint efforts of all federal and state governments, companies and a broad spectrum of stakeholders. No one government, organization, company or entity by itself is capable of addressing all of the environmental and economic challenges of reducing climate change emissions in the United States and around the globe.

USCPA commends EPA for taking an important first step in addressing issues related to the Protocol. We greatly appreciate the opportunity to share our specific thoughts with the Agency about these important issues that have global implications for the ability to create a voluntary, credible, workable system to reduce GHG emissions.

USCPA has reviewed the *Protocol Core Module Guidance* and want to share with the Agency our specific responses and reactions to the guidance document. We also want to share with the EPA, USCPA's recommendations on ways to ensure that the protocol

meets both its global climate objective while at the same time creating a workable and common sense approach that will make the program attractive to both existing and new Climate Leader participants.

EPA should establish a “materiality” rule to recognize that emissions under certain percentages should not be considered “material” to a GHG emissions report.

USCPA recommends the EPA address the issue of materiality through-out the protocol. The protocol calls for the reporting or calculating of emissions that are quite often, not material (not substantial) when placed in the context of a company’s entity-wide GHG emissions. USCPA recommends the EPA not require companies to report or calculate such emissions, so long as the company communicates in writing that specific GHG emissions are “not material”. We believe that GHG emissions under 5 percent should be considered “not material.”

EPA should carefully consider clarifying who is the “responsible reporting entity?”

The issue of who is the “responsible reporting entity” is complicated and not a simple determination in many business situations. It is USCPA’s recommendation that “management control” vs “equity” should determine who should be responsible for reporting.

USCPA recommends that only one national GHG registry be utilized for those participating in voluntary reporting and GHG reduction programs.

EPA has done an admiral job of working with WRI and the World Business Council for Sustainable Development in developing a reporting protocol. But it is important for accuracy, continuity, and to keep company GHG reporting costs down, that the federal government should have only one GHG registry.

Reporting to EPA and DOE with different reporting requirements does not serve the overarching goal of achieving significantly greater participation by companies from all sectors and sizes and is not cost effective. The President’s Climate Initiative to improve the DOE 1605 (b) GHG Registry has merit and is being supported by a number of entities. Improvements are needed in the registry and we believe the EPA can be of assistance to the DOE in strengthening and improving its quality.

USCPA also urges the federal government to encourage state governments to support and promote use of a single federal DOE GHG registry rather than implementing different registries in each state that may or may not be consistent.

EPA should apply a “materiality rule” to biofuel emissions

EPA needs to carefully assess the ways that emissions from bio-fuels are reported. The Protocol assigns a net 0 to bio-fuel use but requires companies to report the GHG emission anyway. This leads to unnecessary confusion and costs and may result in

including the bio-fuel emission numbers unintentionally. USCPA recommends reporting of bio-fuels be addressed in a way that eliminates this confusion. USCPA believes this issue should be subject to the “materiality” rule discussed above.

EPA should apply a “materiality rule” to CH4 and N2O Emissions

The Protocol requires calculating and reporting CH4 and N2O emissions. USCPA believes a company should not be required to report fugitive CH4 losses if they are not material relative to total emissions. This issue should be subject to the “materiality” rule stated above. Some companies in certain industries may find their CH4 emissions material or substantial as a portion of their total emissions and in those cases it would be expected that they would report those emissions.

USCPA recommends entity wide and project reporting only

USCPA recommends that only entity-wide and project reporting be used as the method for calculating CO2 emissions. The Protocol requires both facility and entity-wide reporting. Reporting emissions for each facility to the GHG registry is a burdensome reporting requirement that is un-necessary. A significant number of companies have 50 to 100 facility locations or more. Developing reports for each one is time consuming and unnecessary so long as the total entity-wide reporting is accurate. USCPA supports quality record keeping by the company and when appropriate, third party review to assure accuracy and integrity. In order to ensure that the states have the information they need we would re-emphasize the importance of having only one reporting registry and that states should be able to easily obtain the information contained in that registry.

“Quality assurance” needs to be determined by the quality of the data and the quality of the method consistently used to make the emissions calculation

The protocol suggests that CEMS data should be compared to fuel data calculations for quality assurance. USCPA would suggest that the comparison of fuel data is not the most effective or efficient way to address “quality assurance” issues. “Quality assurance” needs to be determined by the quality of the data and the quality of the method consistently used to make the emissions calculation. A reporting entity should apply the best available calculation methodology on the emission source and use it consistently. If calculation methodologies are changed, the emissions should be restated. So long as an entity consistently uses the same calculation methodology, it would be USCPA’s recommendation that either should be acceptable to the EPA as equivalent value in the registry.

EPA should take steps to ensure that Climate Leader participants are not exposed either by EPA or external organizations to either legal or regulatory pressure inconsistent with the pressures put on non-participants.

Given the litigious nature of our society, USCPA members are very sensitive to the ways that company information submitted to the EPA may be used by the agencies or third parties. Due to the fact that all data provided by companies are accessible by the public, we recommend EPA identify issues and develop a strategy to ensure that the threat of potential litigation or regulation not inhibit the voluntary nature of the Climate Leaders program. In addition, we would recommend that EPA add language to its program and protocol that identifies and strengthens the public understanding that: Climate Leaders is a “voluntary” program; encourages “learning”; is under development and will be for some time and thus has uncertainty; and that information submitted to the EPA is done so in good faith and is not to be used by or for use of existing or future EPA regulatory programs. A company that participates in Climate Leaders should not be exposed any legal or regulatory pressure that is not also directed at non-Climate Leader companies.

EPA should be sensitive in using the words “Recommend” vs. “Require” in the rulemaking.

The protocol uses words like “required” or “must” to describe actions that companies are asked to do to utilize the protocol and the participate in the Climate Leaders Program. Consistent with the concerns stated above, and the fact that Climate Leaders is a voluntary program, USCPA would respectfully recommend that words be carefully selected to ensure the voluntary nature of the program.

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME:27-JAN-2003 11:23:21.00

SUBJECT:: I will attend today's CCSPO meeting/retreat -- thanks, PC

TO:smaccrac@usgcrp.gov @ inet (smaccrac@usgcrp.gov @ inet [UNKNOWN])
READ:UNKNOWN

TEXT:

CGQ
434 PC

Interagency Working Group on Climate Change Science and Technology

Planned Meeting Dates for 2003

Commerce Deputy Secretary Sam Bodman, Chair
Energy Under Secretary Bob Card, Vice Chair

- ξ All meetings are scheduled for Thursdays from 10:00 a.m. to 12:15 p.m., at locations to be announced prior to each meeting.
- ξ Agendas and briefing notes will be circulated to Working Group members one week prior to each meeting.

MEETING DATE	EXTERNAL* TOPIC	SUGGESTED PRESENTER(S)	KEY INTERNAL TOPIC	SUGGESTED PRESENTER(S)
January 30, 2003**	None	N/A	Management and Budget (FY2003/FY2004)	TBD
March 27, 2002	Decision Support Analyses	Jake Jacoby, MIT	Voluntary Emission Program – Government Update	Robert Card, DOE Linda Fisher, EPA
May 29, 2003	Voluntary Emission Program – User Perspectives	Sir Mark Moody-Stewart, Ex-Shell	Earth Observation Summit	Greg Withee, NOAA Ghassem Asrar, NASA
July 24, 2003	IPCC Update	R.K. Pachauri, IPCC	Budget (FY2005)	James Mahoney, NOAA David Conover, DOE
September 18, 2003	UNFCCC Update	Ms. Joke Waller-Hunter, UNFCCC	Technology Program – Government Update	David Conover, DOE
November 20, 2003	Private Sector Sponsorship of Technology Development	Lynn Orr, Stanford University	Preparation for COP 9	Paula Dobriansky, State

*The order of External Topics may change

**The January 30, 2003, meeting will adjourn at noon

Questions about the schedule and agendas should be directed to:

1. Ms. Stephanie Harrington (CCSP professional staff assistant to Dr. Mahoney)
202-482-1944, or email to Stephanie.Harrington@noaa.gov
2. Ms. Pat Thorne (executive assistant to Dr. Bodman)
202-482-8376, or email to Pat.Thorne@doc.gov

001944

IWGCCST – Science Update

30 January 2003

- **December 2002 Workshop**
 - 1300 participants (47 States and 35 other nations)
 - 225 Presenters, Panelists, Moderators
- **Comments on Draft Strategic Plan**
 - 270 individuals/groups submitted comments

U.S. Climate Change Science Program Strategic Plan – Time Line

- Individual comments received on web site until January 18, 2003 - *270 comments*
- February 2003 NRC Report: Input to final plan
- Completion of Strategic Plan, April 2003
- September 2003 NRC Report: Review of entire process

Workshop Results/Comments General

- Overall support for science questions
- Overall support for robust technology initiative
- Appreciation for new focus of program
- Calls for integrated findings and relevant analyses/projections
- Much work remains to be done
- National Academy likely to agree

Workshop Results/Comments - Issues

- Resources and prioritization
- Realistic timelines
- Short vs. long term balance
- Plans for specific analyses and reports
- Agency responsibilities and interagency processes
- Linkages and cross-cutting analyses
- Regional analyses
- Ecosystem monitoring
- Model development
- Stakeholder communication, incl. international

Interagency Working Group on Climate Change Science and Technology

**Thursday, January 30, 2003, 10:00 a.m. to Noon
Department of Commerce, Rm. 4830**

Agenda (revised 29 Jan 2003)

Time	Item	Invited Discussion Lead
10:00	Call to Order	Dep Sec Bodman, DOC
10:05	Legislative/Policy Update	Chairman Connaughton, CEQ
10:20	International Update, including COP 9 preview	Asst Sec Turner, State
10:35	Earth Observation Summit	U/S Lautenbacher, DOC
10:45	1605(b) Update	U/S Card, DOE
10:55	Management and Budget – FY2003 Appropriations and FY2004 Rollout	Assoc Dir Peacock, OMB
11:05	Science Update	Asst Sec Mahoney, DOC
11:20	Technology Update	CCTP Dir Conover, DOE
11:35	Discussion of draft annual meeting schedule	U/S Card, DOE
11:45	Other Topics and General Discussion	U/S Card, DOE
12:00	Adjourn	

Draft for comment at the January 30, 2003 IWGCCST meeting

CGQ
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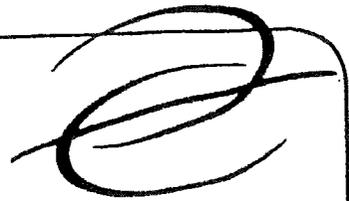
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Thursday, January 30, 2003

Voinovich: Deal On CO2 Key To Moving Bush 'Clear Skies Initiative'

BY CHRIS HOLLY

Sen. George Voinovich, tapped by new Senate Environment and Public Works Committee Chairman James Inhofe to shepherd President Bush's Clear Skies Initiative through that panel, said Wednesday the Bush proposal is not likely to move unless the committee can craft a deal on reducing utility greenhouse gas emissions.

Bush upped the political stakes of his Clear Skies Initiative (CSI) Tuesday by challenging Congress to enact the proposal in his State of the Union address. CSI would require electric utilities to cut emissions of sulfur dioxide (SO₂), nitrogen oxides (NO_x) and mercury by 70 percent by 2018.

Utilities have been supportive of the concept behind the Bush plan, but key Senate Democrats, strongly backed by the environmental community, have panned the proposal because it does not include a cap of emissions of carbon dioxide (CO₂), one of several greenhouse gases thought by most scientists to be responsible for global warming.

Voinovich (R-Ohio), whom Inhofe (R-Okla.) selected to chair the environment panel's Clean Air, Climate Change

(Continued on page 3)

ED Volume 31, Number 20

FERC: Gas Markets Remain Ripe For Gaming

BY JEFF BEATTIE

In a grim prognosis for the already battered energy industry, Federal Energy Regulatory Commission staff said Wednesday that natural gas markets remain ripe for potential gaming this year, despite stepped-up federal and industry scrutiny.

At an agency open meeting where they presented the broad gas market assessment, commission staff were quick to underscore fruitful efforts by FERC, other agencies and industry to combat "shaken confidence" in the market brought on by bogus price reporting, so-called "wash trades" and other alleged market shenanigans.

The report, entitled *2003 Natural Gas Market Assessment*, said discovery of these dubious practices was a logical result of "a high degree of scrutiny" that has followed the commission's attempts to complete restructuring of U.S. natural gas markets.

But in an apparent reference to past market behavior now under scrutiny, the report said: "Nevertheless, it is likely

(Continued on page 4)

No Free Lunch In Hydrogen Vehicles

In an act of political brilliance, President Bush, in his State of the Union speech, stole the Holy Grail of environmentalism: the hydrogen-powered, fuel-cell car.

For two decades, environmentalists have held out the "hydrogen economy" as the pollution-free future for transportation. Unfortunately, it also has had about it the whiff of a free lunch.

The theory is this: Hydrogen is fed into a fuel cell on a vehicle and, to quote the president, "a simple chemical reaction" produces electricity, which powers the vehicle and leaves no emissions save water. In a trice, with a fuel-cell vehicle, pollution disappears along with dependence on imported oil. It is an appetizing prospect.

However, there are three problems. One: we have no easy source of hydrogen. Two: other alternative fuels, such as natural gas and propane, have found no favor in the marketplace. Three: a massive new infrastructure to deliver hydrogen would be needed.

Hydrogen can be made from reforming almost any fossil



fuel, or by cracking water through hydrolysis. The former defeats the purpose because you still have to have oil, coal or natural gas to manufacture hydrogen. Natural gas is the easiest route because it can be reformed on the vehicle. But why not run the vehicle on

natural gas to begin with? Why burden it with a dual system of reforming the gas and then making electricity?

It is unlikely that hydrogen in the quantities needed could be achieved in a sustainable way without cracking water. But this would take vast quantities of electricity and many dedicated power plants burning fossil fuels, or a phalanx of new nuclear power plants.

Even as fuel-cell technology has improved, its advocates have come to realize that as with so many hopeful energy technologies, it is hard to get from here to there: to change the infrastructure, re-educate consumers and mechanics, and wean the public from the hugely durable and efficient gasoline-powered vehicles of today.

(Continued on page 4)

CA Power Supplies OK Until 2005

The California Energy Commission said Tuesday it expects supplies in the state should be "in good shape through 2005," with reserve margins of 9 to 20 percent during the high-demand summer months.

In a report to the State Senate Energy Committee, the commission said that even without counting spot-market imports the state should have a 9 percent reserve during the summer months of July-September. Including imports from neighbors, the commission estimated its reserves at 15 percent for the critical summer months.

"In a more normal, cooler weather probability scenario, the reserve margin increases to 16 percent, climbing to a 20 percent reserve margin with the addition of probable spot-market purchases," said Steve Larson, the commission's executive director.

The commission attributed the buffer to the construction of 18 new power plants since 2000, adding more than 4,980 megawatts to the state's supply. By the end of this summer, seven more plants capable of generating another 3,106 MW will come online. In addition, renewable power plants funded by the commission are expected to contribute another 12 MW before August, the commission said.

Plus, energy efficiency projects are expected to shave 1,100 MW from peak loads, and the commission said new power plants in neighboring states are also helping the outlook.

The system, said Larson, "appears to be in good shape through 2005, given the new generation from power plants both in-state and in neighboring states and the ongoing energy efficiency programs."

Beyond 2005, however, reserve margins again begin to slip, falling from 12.7 percent during peak demand in 2006 to 8.8 percent in 2008.

FERC Trims Pipeline Bids To Hike Shipper Credit Scrutiny

BY JEFF BEATTIE

In its clearest stand yet on an issue dividing natural gas pipelines and many of their customers nationwide, the Federal Energy Regulatory Commission Wednesday scaled back two pipelines' requests for new power to tighten credit requirements on shippers.

By a unanimous vote, FERC's three commissioners softened proposals from El Paso Corp.'s Tennessee Gas pipeline and Northern Natural Gas Co., a subsidiary of MidAmerican Energy Holdings Co.

Among other things, FERC said shippers should be given more time than the pipelines had suggested to post financial guarantees in the event they became non-creditworthy.

Northern Natural and Tennessee were among the first of at least five major U.S. pipelines asking for new protections against the possibility that some of their shippers might fail.

Pipelines flooded FERC with those requests this fall, arguing the new measures were necessary in light of numerous credit downgrades that had hit many shippers and their parent companies.

More broadly, the matter has become something of a debate on how the industry should distribute risks arising from the erosion of Wall Street's confidence in energy companies following the Enron Corp. scandal and other energy industry debacles.

Shippers have argued bitterly that pipelines are overstating the risks they face and unfairly trying to shift much of that risk onto shippers.

From the pipeline perspective, "we are trying to increase security in case shippers fall below creditworthiness simply because our own credit depends on it," Joan Dreskin, general counsel for the Interstate Natural Gas Association of America, told *The Energy Daily* after the meeting.

In its most comprehensive statement yet on the matter, FERC in Wednesday's order:

- Rejected a pipeline proposal to compel non-creditworthy shippers post, within five days after receiving notice, to post collateral covering three months worth of future ser-

vice.

- Said the pipeline could, as an alternative, require non-creditworthy shippers to post collateral to cover one month of service within five days. Shippers could use the next thirty days to come up with collateral to cover an additional three months of service.

- Rejected a pipeline proposal to confiscate gas left on the system by a non-creditworthy shipper whose service had been discontinued.

- Said the pipeline tariffs must include "object criteria" to judge whether shippers are creditworthy. FERC staff said Wednesday that some pipelines tariffs currently include such criteria and some do not.

Although Commissioner William Massey questioned whether FERC should address the credit issues in a generic rulemaking, he and Commissioner Nora Brownell eventually lined up behind a suggestion from Chairman Pat Wood to first rule individually on several pipeline's pending requests.

Among others, PG&E's Gas Transmission Northwest (GTN) pipeline, Entergy-Koch L.P.'s Gulf South pipeline, and PGT's North Baja pipeline all have similar proposals pending at FERC.

If any generic issues remain after FERC dispenses with those cases, the commissioners agreed, FERC could handle them in a generic proceeding this spring or summer. A report on the shipper credit issue is due in June from the North American Energy Standards Board (NAESB).

"Let's get through the batch of these," said Wood in reference to the pending pipeline proposals.

"Then, if there needs to be an open process to come talk..., I'm open to that if that is something parties are telling us we need to do."

One industry source Wednesday called a subsequent generic rulemaking unlikely because two of the pending pipeline proposals will force FERC to make all the big decisions.

"My guess is that once FERC has ruled on GTN and Gulf South, most all of the issues will have been treated by the commission," the source said.

Deal On CO2 Key To Moving Bush Initiative....

(Continued from page one)

and Nuclear Safety Subcommittee, said he hoped to craft a deal that would allow Bush's proposal to clear the committee and, ultimately, the Senate.

"I'm looking forward to working with the majority and the minority on the committee and on my [subcommittee] to see if we can't tackle things that have been around here for a very long time, including clean air legislation—the president's Clear Skies Initiative—and trying to work with environmental groups and others to see if we can't compromise and work something out to deal with the small problem of greenhouse gases," Voinovich said.

"If you can't work that out you probably can't do [SO₂], NO_x and mercury."

Speaking to reporters as he left the environment committee meeting, Voinovich acknowledged that presidential politics would make his CSI negotiations more difficult.

Sens. Joseph Lieberman (D-Conn.) and John Kerry (D-Mass.), two of four declared congressional candidates for the Democratic 2004 presidential nomination, are staunch environmentalists and unlikely to support multi-pollutant legislation that does not also address CO₂. Lieberman also is the senior Democrat on Voinovich's clean air subcommittee.

Voinovich said the chances of a deal hinge on the participation of senators who are "really interested" in negotiating.

"I know some of the presidential candidates in the Congress are never going to be able to make a compromise, but maybe there's enough of us who aren't running for president to sit down, and maybe I can sit down with some of the environmental groups that are more moderate and share with them that as long as we don't make progress on this issue, that getting on with some of the other issues—in terms of [SO₂], NO_x and mercury—may not occur.

"So if we can work out some things that may not be exactly what the administration wants, and some things that some [environmental] groups want, maybe we can come in on the middle ground...."

The political importance of Bush's CSI has increased enormously since early December, when utility officials wondered aloud if Bush and his senior aides would commit the full weight of the White House behind the proposal. Utilities urgently want clarity on their future regulatory burdens as they plan their capital construction budgets.

Earlier this month, utility executives met with White House senior political strategist Karl Rove, urging him to advise Bush to make CSI a major legislative priority for the administration.

Bush clearly heard that

message, calling on Congress to pass his bill in his State of the Union address. But senior Democrats made it equally clear that they will fight the president on the issue.

"Clear Skies is actually weaker than the current Clean Air Act," Senate Democratic Leader Thomas Daschle (S.D.) said Wednesday. "It delays reductions in air pollution and makes it harder for states to limit pollution. Again, the president is using all the right rhetoric but clinging to all the wrong policies."

Sen. Hillary Clinton (D-N.Y.), who sits on Voinovich's subcommittee, told *The Energy Daily* Wednesday that the president's efforts to induce utilities and other industrial companies to cut greenhouse gas emissions voluntarily is "very encouraging" and could serve as a basis for a deal.

"Some kind of protocol that starts with voluntary standards, with required monitoring, that would be transformed into mandatory standards within a relatively short period of time...is something that I'm interested in," she said.

At the environmental panel's Wednesday organizational meeting, Inhofe said he had decided to pass most of the responsibility for considering and moving legislation to the chairmen of each subcommittee. Markups of legislation, Inhofe said, would be held at the subcommittee level rather than in full committee.

An Inhofe aide later told reporters that subcommittee-approved legislation would still require a vote by the full committee before moving to the floor, but said Inhofe expects most of the work—and votes on amendments—to occur at the subcommittee level.

Inhofe reiterated that his first priority would be moving the massive highway construction spending authorization bill to the president's desk by September 30, when authority for the current federal highway construction program is set to expire.

But he said he would introduce, at Bush's request, the CSI legislation "in several weeks," and promised to work with Voinovich to move that bill as expeditiously as possible.

On other environmental issues, Inhofe said he would undertake a rigorous review of the science underlying Environmental Protection Agency rulemakings.

And in a more controversial proposal, he said he would "explore" whether Congress should amend the federal air quality statute to allow EPA to consider costs when reviewing national ambient air quality standards and other regulations.

"The Clean Air Act...precludes regulators from considering costs when crafting rules and regulations," Inhofe said. "I think that's something this committee should explore."

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No Free Lunch In Hydrogen Vehicles... (Continued from page one)

Hydrogen, today, occupies the same cherished place in environmental hopes that nuclear fusion once did.

As one gets closer to a new fuel source, the collateral problems associated with all fuels begin to emerge. The federal government, under five presidents, has tried to encourage the development of natural gas-fueled vehicles. They are cleaner than their gasoline or diesel equivalents. Federal fleets have used natural gas; city buses use it; and large commercial fleets, such as United Parcel Service, use it. But refueling has remained a stubborn obstacle for private vehicles.

As a bit of trivia, taxis in Australia have been fueled with natural gas since the 1970s. It works like a dream, but a refueling infrastructure never emerged. I know many natural gas enthusiasts around Washington who have gradually given up on it, because of the problems of refueling.

Hydrogen would have the same problem except that, because the energy density of hydrogen is very low, the refueling stations would have to be larger. In laymen's terms, energy density is the amount of bang for your buck in a given quantity of a fuel. The energy density of hydrogen is about 1/10th of that of natural gas. One former secretary of energy describes the hydrogen car as "science fiction."

Yet it has a constituency and an appeal. Bush also has

disarmed hydrogen enthusiasts, such as Amory Lovins, who have been preaching its virtues with messianic fervor.

Clearly, Bush is interested in alternative fuels. The large white pickup truck in which he tools around Crawford, Texas has been converted from gasoline to propane. Propane burns more cleanly than conventional fuels, but it is a byproduct of refining and does not exist in nature. Maybe he had meant to convert the truck to natural gas.

If Bush is sincere about reducing our lethal dependence on imported oil, he can stimulate an improvement in miles-per-gallon by getting behind the new generation of hybrid vehicles. A lot depends on whether Ford and General Motors succeed in producing light trucks and SUVs that operate indistinguishably from their gasoline equivalents.

Hybrids cut fuel consumption by about half. Ergo, they could cut oil imports drastically as we roll over the transportation fleet. The two hybrids now on the market from Honda and Toyota are small cars, but the driving experience is indistinguishable from that of an equivalent gasoline car.

The hybrid is here and now, and offers the largest immediate gain in conservation without federal government research, a change in the infrastructure, or the perfection of complex new technology. Sure, the hybrid only offers a glass that is half full, but it is at hand. No science fiction, just evolutionary improvement.

Gas Markets Remain Ripe... (Continued from page one)

that revelations of improper behavior will continue for some time."

And of the potential for future problems, the report said "[t]he potential for manipulation of energy remains a concern. Without proper monitoring, the likelihood of successful manipulation could increase under current tight supply conditions."

The report also said the gas market problems are being exacerbated by plunging confidence in the accuracy of published price indexes—and the lack of alternative price discovery mechanisms.

And recent decisions by several companies to end gas-trading operations has not helped, said FERC, because that has reduced market liquidity generally and increased market concentration in some regions.

The commissioners, however, generally downplayed the gloomier parts of the report, prepared by the agency's Office of Market Oversight and Investigations (OMOI).

"I think we have a [gas] market that needs fine-tuning, as opposed to an electricity market that needs complete re-structuring," said Commissioner Nora Brownwell in the meeting.

Brownwell said it was the job of OMOI staff to root out any potential market problems and let the commission determine which ones are real.

"A good dose of paranoia at OMOI is appropriate," she told reporters after Wednesday's meeting.

For his part, FERC Chairman Pat Wood said: "FERC's active role in natural gas markets was about a decade ago," when FERC was unbundling gas service.

"Our role [now] is to make sure the train stays on the

track, which is a little bit different from laying the tracks.

"These [issues] are manageable," said Wood although he added U.S. natural gas markets would "not suffer from inattention" and that the commission will remain vigilant in the months ahead.

The new FERC report raised several specific concerns about a growing crisis in confidence about price indexes reported by trade publications.

Several U.S. energy companies have admitted that their traders reported bogus trade data to some publications, in an apparent attempt to manipulate gas markets, although it is unclear whether the indexes were affected. Federal prosecutors in the past two months have indicted two former gas traders for alleged false reporting and wire fraud.

The FERC report says that the revelations may "lead to the unraveling of existing natural gas contracts.

"Without an alternative price discovery mechanism, [market participants] would be left without a market basis for determining prices for new contracts."

In addition, the FERC report said "concerns surrounding price indices may affect the willingness of parties to enter new contracts."

"Disarray in natural gas price discovery could hinder traders, suppliers and customers from entering the market and creating liquidity. The result could be a dysfunctional system," said the report.

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11:45	Other Topics and General Discussion	U/S Card, DOE
12:00	Adjourn	

January 28, 2003 (5:45pm)

To: Phil Cooney



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Date: January 30, 2003

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Pages: 8, including this cover sheet.

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Environmental Protection Division
Massachusetts Office of the Attorney General

Subject: Notice of Intent to Sue Under Clean Air Act § 7604

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Please find attached a courtesy copy of a Notice of Intent to Sue Under Clean Air Act § 7604 that is being sent today, by first class mail, from Massachusetts Attorney General Tom Reilly, Connecticut Attorney General Richard Blumenthal, and Maine Attorney General Steven Rowe.

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The documents accompanying this telecopier transmission contain information which may be confidential and/or privileged. The information is intended solely for the use of the addressee named above. If you are not the intended recipient, you are advised that any disclosure, copying, distribution or use of the information transmitted is prohibited. If you have received this telecopier transmission in error, please notify the sender by telephone immediately and return the original transmission to the sender by first class mail via the U.S. Postal Service. Thank you for your compliance.

01/30/03 THU 13:29 FAX



Commonwealth
of Massachusetts



State of
Connecticut



State of Maine

January 30, 2003

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

Honorable Christine Todd Whitman, Administrator
United States Environmental Protection Agency 1101A, U.S. EPA Headquarters
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Notice of Intent to Sue Under Clean Air Act's 7604

Dear Administrator Whitman:

On July 17, 2002, the Attorneys General from eleven states sent a letter to President Bush urging him to reconsider the federal government's climate change policy. The basis of that letter was the recent, comprehensive report: *U.S. Climate Action Report 2002*, U.S. Dept. of State, Washington, D.C., May 2002 ("*Climate Action Report*"). The *Climate Action Report* describes serious consequences of global climate change and repeatedly states the conclusion that emission of carbon dioxide from the burning of fossil fuels is the dominant source contributing to human-caused climate change. As explained in the Attorneys General's letter, we believe that the conclusions set forth in the *Climate Action Report* compel prompt implementation of mandatory reductions of carbon dioxide emissions.

We fully endorse separate efforts by individual States to control carbon dioxide emissions, and some States are undertaking such efforts. For example, Massachusetts has promulgated state regulations designed to reduce carbon dioxide emissions from older power plants. California has enacted a law to limit carbon dioxide emissions from vehicles. Other States are expected to take such steps soon. As stated in the July 17th letter, however, we believe that the most effective and least costly approach to dealing with the climate change problem is through a nationally coordinated, market-based program. We have not seen any appreciable progress on the development of a national program to address carbon dioxide emissions. In fact, the Administration is actively opposing any such program. In seeking to protect the health and welfare of our citizens from the impacts of climate change, we are left to fall back on our available remedies under existing law.

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For the reasons set forth below, we believe that you have a mandatory duty under existing law to begin to regulate carbon dioxide as a "criteria air pollutant" pursuant to Section 108 of the Clean Air Act. We also believe that your failure to do so is a violation of the Act for which we are entitled to redress. Accordingly, please consider this letter as a notice of intent to sue pursuant to Section 304 of the Clean Air Act, 42 U.S.C. § 7604, for this violation of the Act.

As EPA Has Recognized, Carbon Dioxide Is an "Air Pollutant" Under the Clean Air Act

The Clean Air Act regulates "air pollutants" in several ways. It is now clear that carbon dioxide is one such "air pollutant" within the meaning of the Clean Air Act. The plain meaning of the broad definition of "air pollutant," in the Act itself, establishes this point. "[A]ir pollutant" is defined in Section 302(g) to include "any physical, chemical, [or] biological . . . substance or matter which is emitted into or otherwise enters the ambient air." 42 U.S.C. § 7602(g). Unquestionably, carbon dioxide is a physical or chemical substance or matter that is emitted into ambient air. As such, carbon dioxide fits squarely within the Act's definition of "air pollutant." As further support, the Act itself refers to "carbon dioxide" as an "air pollutant." See Section 103(g), 42 U.S.C. § 7403(g). The fact that carbon dioxide is a natural constituent of the atmosphere, in addition to being emitted by human activities, fails to un-do its status as an "air pollutant." Other substances that occur naturally in the ambient air, such as ozone, for example, are still regulated as "air pollutant[s]."

The EPA itself has twice officially concluded that carbon dioxide is an "air pollutant." In 1998, EPA General Counsel Jonathan Z. Cannon prepared a formal memorandum, in response to a request from Congressman Tom DeLay, in which he set forth the legal analysis supporting the agency's conclusion that greenhouse gases, including carbon dioxide, are indeed "air pollutants" subject to regulation. Memorandum of Jonathan Z. Cannon, General Counsel, to Carol M. Browner, Administrator, regarding *EPA's Authority to Regulate Pollutants Emitted by Electric Power Generation Sources*, dated April 10, 1998. In 1999, EPA General Counsel Gary S. Guzy confirmed and reiterated this position in testimony to Congress in which he presented "the U.S. Environmental Protection Agency's (EPA) views as to the legal authority provided by the Clean Air Act (Act) to regulate emissions of carbon dioxide, or CO₂." *Testimony of Gary S. Guzy, General Counsel, U.S. EPA, Before a Joint Hearing of the Subcommittee on National Economic Growth, Natural Resources and Regulatory Affairs of the Committee on Government Reform and the Subcommittee on Energy and Environment of the Committee on Science, U.S. House of Representatives, Oct. 6, 1999.*

As EPA Has Recognized, Carbon Dioxide Causes or Contributes to Air Pollution Which May Reasonably be Anticipated to Endanger Public Health and Welfare

The Clean Air Act requires EPA to take certain actions when it determines that a pollutant may "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare." See, e.g., Clean Air Act Section 108(a)(1), 42 U.S.C.

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§ 7408(a)(1). There is no longer any genuine dispute that carbon dioxide emissions are endangering public health or welfare within the meaning of the Act. Notably, Section 302(h) of the Act defines "welfare" to include effects on "weather" and "climate." 42 U.S.C. § 7602(h).

The findings and conclusions set forth in the *Climate Action Report* undeniably establish that carbon dioxide emissions cause or contribute to climate change. The *Climate Action Report* devotes an entire chapter to a discussion of "potential impacts of climate change" and "response options that are designed to increase resilience to climate variations and reduce vulnerability to climate change." *Climate Action Report* at 83; see *Chapter 6: Impacts and Adaptations*. Specifically, the *Climate Action Report* concludes that the dominant source of human-caused climate change is carbon dioxide emissions and that the "the long lifetimes of greenhouse gases [such as carbon dioxide] in the atmosphere and the momentum of the climate system are projected to cause climate to continue to change for more than a century." *Climate Action Report* at 82 (emphasis added). In addition to this general concession that carbon dioxide is causing climate change, the *Climate Action Report* details many specific examples of adverse impacts to weather and public health that are occurring, or are likely to occur, such as: increases in temperature, heat index, intense rainfall events, frequency of heat waves, water shortages, drought, sea level, heat stress, diseases from insects, ticks, rodents and water-borne vectors, and health effects due to air pollution and extreme weather events.

Unsurprisingly, the *Climate Action Report* acknowledges the difficulty of predicting what the precise impacts of climate change will be at any given place or time. Such acknowledgments do not undercut the *Climate Action Report*'s pervasive conclusions that: climate change is occurring; it is caused by carbon dioxide emissions from human activities; and it poses harm to public health and welfare. Thus, the *Climate Action Report* determines that carbon dioxide emissions "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare" within the meaning of the Act. As explained below, the *Climate Action Report* itself has triggered your duty to regulate carbon dioxide pollution under the Clean Air Act.

The *Climate Action Report* was the culmination of an extensive and deliberative effort, conducted by EPA and involving numerous federal agencies, to review and analyze existing scientific data and assessments related to climate change. It was prepared to satisfy reporting obligations of the United States that arise under the United Nations Framework Convention on Climate Change (UNFCCC or Rio Treaty), and it was submitted to the United Nations as the official *Climate Action Report* of the United States. In this context, it states the official position of the United States. Under the Supremacy Clause of the Constitution, U.S. Const., art. VI, paragraph 2, a treaty shares equal footing with federal statutes. Conclusions reported to the United Nations as the formal position of the United States, in satisfaction of treaty obligations, therefore, are of equal import in the context of construing federal statutes. See generally, *Murray v. The Schooner Charming Betsy*, 6 U.S. 64 (1804) (holding that an act of Congress "should be construed consistently with international laws).

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We note, as well, that EPA played the lead role in preparation and publication of the *Climate Action Report*, even conducting formal "notice and comment" proceedings on the *Climate Action Report* not once, but twice. 66 Fed. Reg. 15470-71 (Mar. 19, 2001); 66 Fed. Reg. 57456-57 (Nov. 15, 2001). EPA fully reviewed and officially adopted the findings and conclusions of Chapter 6, discussed above, as its own. Moreover, the fact that, after notice and review of comments, EPA reached the conclusions it did, set them out in the *Climate Action Report*, and adopted them as its own, demonstrates that EPA deemed the data and comments it reviewed during that process to be sufficient to support such conclusions. No further notice and comment is necessary to trigger EPA's Clean Air Act obligations.

Consistent with the conclusions of the *Climate Action Report*, both you and President Bush have made numerous statements recognizing that carbon dioxide emissions are endangering public health and welfare and must be reduced. For example, the President has stated that climate change has the "potential to impact every corner of the world," that "the United States is the world's largest emitter of manmade greenhouse gases," and that "[b]y increasing conservation and energy efficiency and aggressively using these clean energy technologies, we can reduce our greenhouse gas emissions by significant amounts in the coming years." Remarks by the President (June 11, 2001). Similarly, you have stated: "If we fail to take the steps necessary to address the very real concern of global climate change, we put our people, our economies, and our way of life at risk." G8 Environmental Ministerial Meeting, Working Session on Climate Change, Trieste, Italy (March 3, 2001).

EPA Has Not Complied with its Mandatory Duty to List Carbon Dioxide as a Criteria Air Pollutant under Section 108.

Pursuant to Section 108(a)(1), "criteria air pollutants" are air pollutants present in ambient air that come "from numerous or diverse mobile or stationary sources" and which, in the Administrator's judgment, "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. § 7408(a)(1). The regulation of such pollutants begins, under Section 108, with a process known as "listing." See 42 U.S.C. § 7408(a). Subsequent to listing, the Act requires EPA to set air quality criteria and National Ambient Air Quality Standards in consultation with scientific advisory committees and based on extensive processes to evaluate risks posed by the newly-listed pollutant and to determine the appropriate, allowable levels of it in ambient air. See 42 U.S.C. §§ 7408, 7409, and 7417(c)(1). Therefore, under the Act, determination of precisely how, and at what levels, a pollutant should be regulated are only considered post-listing.

As noted above, EPA has already concluded that carbon dioxide is an air pollutant that "cause[s] or contribute[s] to air pollution which may reasonably be anticipated to endanger public health or welfare." Furthermore, it is an indisputable fact that carbon dioxide emissions "result from numerous or diverse mobile or stationary sources," including power plants, industrial sources and motor vehicles. 42 U.S.C. § 7408(a)(1)(B); see generally, *Climate Action*

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Report at 37-42. Given these facts, existing case law compels the conclusion that EPA must now list carbon dioxide as a criteria air pollutant. In *Natural Resources Defense Council v. Train*, 545 F.2d 320 (2d Cir. 1976), the issue was whether the Administrator could be subject to a mandamus action to compel him to list lead as a criteria air pollutant. The Administrator conceded that lead posed a serious risk, but, asserting a preference to exercise his discretion to regulate lead in a different manner, declined to list it. The Court emphatically rejected this approach and held that when it is uncontested that an air pollutant from numerous or diverse sources is contributing to air pollution that "may reasonably be anticipated to endanger public health or welfare," the Administrator has a mandatory duty to list that pollutant pursuant to Section 108. See *NRDC v. Train*, 545 F.2d at 328 ("Once the conditions of §§ 108(a)(1)(A) and (B) have been met, the listing of lead and the issuance of air quality standards for lead become mandatory.")

It is now indisputable that emissions of carbon dioxide from numerous or diverse mobile or stationary sources are contributing to climate change and are thereby endangering public health or welfare. We therefore believe that each factor required under Section 108(a)(1) has been met so that you now have a mandatory duty to list carbon dioxide. Your failure to perform this duty is a violation of the Act. The undersigned States intend to commence an action against you under Section 304 to compel compliance with the mandatory duty to list carbon dioxide as a criteria air pollutant under Section 108.

Effect on Our States

As detailed in the *Climate Action Report*, the consequences of human-caused global climate change due to carbon dioxide emissions in the United States are numerous, wide-ranging, and potentially severe. Such impacts will include increased risks of harm to public health, as well as adverse changes in wildlife and plant species distributions, agricultural activities and productivity, forest productivity, availability of water supplies, and shorelines, to name but a few. Although the specific effects will vary in different regions and localities, it is clear that impacts will occur throughout the northeastern United States. The following are just a few examples of specific projections of impacts within our States.

The *Climate Action Report* documents that average temperatures have already increased 1 degree Fahrenheit (F) over the past century, and it projects that over the next century, average temperatures will likely increase 5-9 degrees F. These increases will be experienced in the northeastern States. On its website, EPA notes that by 2100 temperatures in Massachusetts could increase by about 4 degrees F in winter and spring and about 5 degrees F in summer and fall, with a range of 2-10 degrees F. Precipitation in Massachusetts is estimated to increase by about 10 percent in spring and summer, 15 percent in fall, and 20-60 percent in winter. Temperatures and precipitation will similarly increase in Connecticut and Maine.

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These climate changes will have profound consequences for human health. The most direct effect will be an increase in heat-related illness and death. At least one study reported by the EPA on its website projects that in Boston, by 2050, heat-related deaths during a typical summer could increase 50 percent, from close to 100 heat-related deaths per summer to over 150. Increased temperatures will bring with it increased formation of ozone. Because ozone causes adverse respiratory reactions, increased temperatures will result in more ozone related respiratory illnesses. In Connecticut, with its irregular and intense heat waves, just a 2 degree increase in temperature would substantially increase the number of heat related deaths. Connecticut and Massachusetts are already classified as "serious" non-attainment areas for ozone. Southern and coastal Maine is also plagued by ozone pollution, and EPA has proposed to re-designate the southern three counties to a "serious" non-attainment area. Furthermore, increased temperatures will likely lead to northward migration and spread of diseases such as Lyme disease, mosquito-borne illnesses such as West Nile Virus, encephalitis, and possibly dengue fever and malaria, as well as other illnesses that we are not even aware of yet. Leaving aside the monetary value of the deaths, sicknesses, and emotional stress caused by such diseases, the increased prevalence of these illnesses will require our States to increase spending on education, eradication and treatment programs.

Rising sea levels will expose highly developed coastal areas in the northeast to serious risks of flooding and will threaten transportation and sewer infrastructures. Information on EPA's website documents that sea level along the East Coast is rising by 11 inches per century, and it is likely to rise another 22 inches by 2100 in Massachusetts and Connecticut. In Massachusetts, an average of 65 acres of upland is submerged each year as a result of the combination of rising seas and subsiding land. Connecticut's coastline contains important and extensive tidal flats and diverse non-tidal fresh water marshes that may be significantly impaired by rising sea levels. Such changes along the East Coast will require annual expenditures of millions of dollars on coastal stabilization efforts. The cost of sand replenishment along Maine's coast in response to rising sea levels may be as much as \$900 million over the next century. Throughout the northeastern United States, sea level rise could inundate sensitive coastal wetlands, destroying habitat for commercial and game species as well as migratory birds and other wildlife.

Climate change attributable to carbon dioxide emissions will have dramatic effects for the quality and nature of life in the northeast. EPA reports that climate change will irreversibly change the composition of northeastern forests, reducing the brilliant fall colors and likely harming tourism. Maine's vast spruce-fir forests will be especially susceptible to insect infestations exacerbated by warming-induced changes in the timing of spring frosts. Other examples are beyond the scope of this submission. Suffice it to say that carbon dioxide emissions will likely cause or contribute to wide-ranging, adverse changes to just about every aspect of the environment, public health and welfare throughout the northeast.

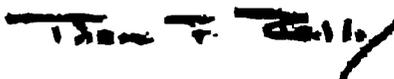
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Honorable Christine Todd Whitman, Administrator
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Conclusion

Based on the foregoing, we believe that you have a mandatory duty to list carbon dioxide as a criteria air pollutant pursuant to Section 108 of the Act, and your failure to do so constitutes a violation of the Act. Our primary goal is not litigation, but, rather is to protect the environment and the health and welfare of the citizens of our States. If you are interested in discussing this matter with us, please contact James R. Milkey, Chief, Environmental Protection Division, Massachusetts Attorney General's office at (617) 727-2200, ext. 3347.

Sincerely,



Thomas F. Reilly
Massachusetts Attorney General



Richard Blumenthal
Connecticut Attorney General



G. Steven Rowe
Maine Attorney General

cc: Robert W. Varney, Regional Administrator
United States Environmental Protection Agency
New England Office
1 Congress St. Suite 1100
Boston, MA 02114-2023

John Ashcroft, Attorney General
U.S. Department of Justice
950 Pennsylvania Avenue, NW
Washington, DC 20530-0001



Office of Science and Technology Policy
 Executive Office of the President
 Eisenhower Executive Office Building
 Washington, DC 20502

CLIMATE CHANGE
Research and Development Funding in the President's 2004 Budget

To advance and bring focus to short term objectives of climate change science, the President created in 2002 the Climate Change Research Initiative (CCRI). The budget proposed \$40 million for CCRI in 2003, and in 2004 this is increased by 355 percent to \$182 million. The CCRI investment will develop resources to support policy making, provide computer resources for climate modeling for decision support studies, and enhance observations and data management for a climate observing system.

CCRI and the U.S. Global Change Research Program (USGCRP) were combined into the Climate Change Science Program (CCSP). USGCRP supports long-term objectives, such as:

- Building a climate observing system;
- Improving climate models through better understanding of the dynamical processes and interconnections between atmosphere, land, and ocean; and
- Conducting fundamental research on climate processes over a large spectrum of time and space scales (e.g., El Nino, aerosols, agricultural practices in North America, and oceanic uptake of atmospheric heat and carbon).

The Budget request for CCSP is the same as proposed in 2003.

Climate Change Science Program	2003	2004	Change (2003 to 2004)	
	\$M	\$M	\$M	Percent
NASA	1,112	1,068	-44	-4%
National Science Foundation	203	213	10	5%
Commerce (NOAA)	118	136	18	15%
Energy	129	133	4	3%
Agriculture	66	73	7	11%
National Institutes of Health	59	61	2	3%
Interior (USGS)	26	26	0	0%
Environmental Protection Agency	22	22	0	0%
Smithsonian Institute	6	6	0	0%
USAID	6	6	0	0%
Transportation	0	4	4	N/A
State	0	1	1	N/A
Total, CCSP	1,747	1,749	2	0%
Subtotal, CCRI (included in CCSP total)	40	182	142	355%

For climate change technology, the budget provides about \$1.2 billion, approximately the same amount as in 2003, for technology research and development and deployment programs to reduce greenhouse gas emissions via renewable energy, energy efficiency, and carbon sequestration. About 90 percent is expended in DOE and ten percent in EPA. As part of the President's National Climate Change Technology Initiative (NCCTI), government-wide spending on climate change technologies will be reviewed, and priority programs to be included in NCCTI will be identified. The Budget includes \$40 million for the NCCTI Competitive Solicitation program, which is an innovative approach for funding technology research and development to reduce, avoid or sequester greenhouse gases.

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SUBJECT:: FYI - Q&As for Dr. Mahoney's January 8 testimony

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"'James.R.Mahoney@noaa.gov'" <James.R.Mahoney@noaa.gov> [UNKNOWN])
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TEXT:

I have attached the set of post-hearing questions from the Senate Commerce Committee that we received yesterday for Dr. Mahoney's January 8, 2003, testimony. We will be drafting responses to these questions which will be sent out for interagency review before being submitted to the Committee.

We did not receive these questions electronically, so I apologize for any difficulties with the file format you may have.

Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944 or 202-419-3487

- Q&As for 8Jan03 Hearing on Climate Change.pdf===== ATTACHMENT 1

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S.169

Global Change Research Act of 1990 (Enrolled as Agreed to or Passed by Both House and Senate)

SEC. 106. SCIENTIFIC ASSESSMENT.

On a periodic basis (not less frequently than every 4 years), the Council, through the Committee, shall prepare and submit to the President and the Congress an assessment which--

- (1) integrates, evaluates, and interprets the findings of the Program and discusses the scientific uncertainties associated with such findings;
- (2) analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; and
- (3) analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years.

SEC. 107. ANNUAL REPORT.

(a) GENERAL- Each year at the time of submission to the Congress of the President's budget, the Chairman of the Council shall submit to the Congress a report on the activities conducted by the Committee pursuant to this title, including--

- (1) a summary of the achievements of the Program during the period covered by the report and of priorities for future global change research;
- (2) an analysis of the progress made toward achieving the goals of the Plan;
- (3) expenditures required by each agency or department for carrying out its portion of the Program, including--
 - (A) the amounts spent during the fiscal year most recently ended;
 - (B) the amounts expected to be spent during the current fiscal year; and
 - (C) the amounts requested for the fiscal year for which the budget is being submitted.

(b) **RECOMMENDATIONS-** The report required by subsection (b) shall include recommendations by the President concerning--

- (1) changes in agency or department roles needed to improve implementation of the Plan; and
- (2) additional legislation which may be required to achieve the purposes of this title.

SEC. 108. RELATION TO OTHER AUTHORITIES.

(a) **NATIONAL CLIMATE PROGRAM RESEARCH ACTIVITIES-** The President, the Chairman of the Council, and the Secretary of Commerce shall ensure that relevant research activities of the National Climate Program, established by the National Climate Program Act (15 U.S.C. 2901 et seq.), are considered in developing national global change research efforts.

(b) **AVAILABILITY OF RESEARCH FINDINGS-** The President, the Chairman of the Council, and the heads of the agencies and departments represented on the Committee, shall ensure that the research findings of the Committee, and of Federal agencies and departments, are available to--

- (1) the Environmental Protection Agency for use in the formulation of a coordinated national policy on global climate change pursuant to section 1103 of the Global Climate Protection Act of 1987 (15 U.S.C. 2901 note); and
- (2) all Federal agencies and departments for use in the formulation of coordinated national policies for responding to human-induced and natural processes of global change pursuant to other statutory responsibilities and obligations.

(c) **EFFECT ON FEDERAL RESPONSE ACTIONS-** Nothing in this title shall be construed, interpreted, or applied to preclude or delay the planning or implementation of any Federal action designed, in whole or in part, to address the threats of stratospheric ozone depletion or global climate change.

TITLE II--INTERNATIONAL COOPERATION IN GLOBAL CHANGE RESEARCH

SEC. 201. SHORT TITLE.

This title may be cited as the 'International Cooperation in Global Change Research Act of 1990'.

SEC. 202. FINDINGS AND PURPOSES.

(a) **FINDINGS-** The Congress makes the following findings:

- (1) Pooling of international resources and scientific capabilities will be essential to a successful international global change program.
- (2) While international scientific planning is already underway, there is currently no comprehensive intergovernmental mechanism for planning, coordinating, or implementing research to understand global change and to mitigate possible adverse effects.

(3) An international global change research program will be important in building future consensus on methods for reducing global environmental degradation.

(4) The United States, as a world leader in environmental and Earth sciences, should help provide leadership in developing and implementing an international global change research program.

(b) **PURPOSES-** The purposes of this title are to--

(1) promote international, intergovernmental cooperation on global change research;

(2) involve scientists and policymakers from developing nations in such cooperative global change research programs; and

(3) promote international efforts to provide technical and other assistance to developing nations which will facilitate improvements in their domestic standard of living while minimizing damage to the global or regional environment.

SEC. 203. INTERNATIONAL DISCUSSIONS.

(a) **GLOBAL CHANGE RESEARCH-** The President should direct the Secretary of State, in cooperation with the Committee, to initiate discussions with other nations leading toward international protocols and other agreements to coordinate global change research activities. Such discussions should include the following issues:

(1) Allocation of costs in global change research programs, especially with respect to major capital projects.

(2) Coordination of global change research plans with those developed by international organizations such as the International Council on Scientific Unions, the World Meteorological Organization, and the United Nations Environment Program.

(3) Establishment of global change research centers and training programs for scientists, especially those from developing nations.

(4) Development of innovative methods for management of international global change research, including--

(A) use of new or existing intergovernmental organizations for the coordination or funding of global change research; and

(B) creation of a limited foundation for global change research.

(5) The prompt establishment of international projects to--

(A) create globally accessible formats for data collected by various international sources; and

(B) combine and interpret data from various sources to produce information readily usable by policymakers attempting to formulate effective strategies for preventing,

mitigating, and adapting to possible adverse effects of global change.

(6) Establishment of international offices to disseminate information useful in identifying, preventing, mitigating, or adapting to the possible effects of global change.

(b) **ENERGY RESEARCH**- The President should direct the Secretary of State (in cooperation with the Secretary of Energy, the Secretary of Commerce, the United States Trade Representative, and other appropriate members of the Committee) to initiate discussions with other nations leading toward an international research protocol for cooperation on the development of energy technologies which have minimally adverse effects on the environment. Such discussions should include, but not be limited to, the following issues:

(1) Creation of an international cooperative program to fund research related to energy efficiency, solar and other renewable energy sources, and passively safe and diversion-resistant nuclear reactors.

(2) Creation of an international cooperative program to develop low cost energy technologies which are appropriate to the environmental, economic, and social needs of developing nations.

(3) Exchange of information concerning environmentally safe energy technologies and practices, including those described in paragraphs (1) and (2).

SEC. 204. GLOBAL CHANGE RESEARCH INFORMATION OFFICE.

Not more than 180 days after the date of enactment of this Act, the President shall, in consultation with the Committee and all relevant Federal agencies, establish an Office of Global Change Research Information. The purpose of the Office shall be to disseminate to foreign governments, businesses, and institutions, as well as the citizens of foreign countries, scientific research information available in the United States which would be useful in preventing, mitigating, or adapting to the effects of global change. Such information shall include, but need not be limited to, results of scientific research and development on technologies useful for--

- (1) reducing energy consumption through conservation and energy efficiency;
- (2) promoting the use of solar and renewable energy sources which reduce the amount of greenhouse gases released into the atmosphere;
- (3) developing replacements for chlorofluorocarbons, halons, and other ozone-depleting substances which exhibit a significantly reduced potential for depleting stratospheric ozone;
- (4) promoting the conservation of forest resources which help reduce the amount of carbon dioxide in the atmosphere;
- (5) assisting developing countries in ecological pest management practices and in the proper use of agricultural, and industrial chemicals; and
- (6) promoting recycling and source reduction of pollutants in order to reduce the volume of waste which must be disposed of, thus decreasing energy use and greenhouse gas emissions.

TITLE III--GROWTH DECISION AID**SEC. 301. STUDY AND DECISION AID.**

(a) The Secretary of Commerce shall conduct a study of the implications and potential consequences of growth and development on urban, suburban, and rural communities. Based upon the findings of the study, the Secretary shall produce a decision aid to assist State and local authorities in planning and managing urban, suburban, and rural growth and development while preserving community character.

(b) The Secretary of Commerce shall consult with other appropriate Federal departments and agencies as necessary in carrying out this section.

(c) The Secretary of Commerce shall submit to the Congress a report containing the decision aid produced under subsection (a) no later than January 30, 1992. The Secretary shall notify appropriate State and local authorities that such decision aid is available on request.

Speaker of the House of Representatives.

Vice President of the United States and

President of the Senate.

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S.169

Global Change Research Act of 1990 (Enrolled as Agreed to or Passed by Both House and Senate)

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Speaker of the House of Representatives.

Vice President of the United States and

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CREATION DATE/TIME: 4-FEB-2003 18:48:32.00

SUBJECT:: Guidance for revision of Strategic Plan

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CC:whohenst@OCE.USDA.gov (whohenst@OCE.USDA.gov [UNKNOWN])
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TEXT:
Dear Working Group Co-Chairs and Lead Authors -

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This message contains guidance on how to proceed with revision of the draft Strategic Plan. You will find two PDF attachments: a guidance memo and a schedule. If you have difficulties with either file, please contact Ms. Sandy MacCracken(smaccrac@usgcrp.gov 202.419.3483) or Ms. Leslie Branch(lbranch@usgcrp.gov 202.223.6262 (x3460)). In addition, WG co-chairs and lead authors will receive an express package that contains hardcopy of these items as well as other materials to facilitate your work.

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Please make note of a few key milestones:

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24 and 26 February: Half-day retreats for WG co-chairs, and lead authors the CCSP/SGCR principals,

28 February: NRC comments expected

7 March: CCSP/SGCR principals, IWG co-chairs, and lead author meeting on NRC comments and next steps

24 March: Drafts due

April: Technical and high-level review processes and additional periods for revision (as noted)

30 April: Launch of final draft via <climatescience.gov>

31 May: Annotated comments due

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Locations and times of the above meetings will be provided as soon as possible.

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Thank you for your time and attention to this very important undertaking.

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Sincerely,

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Richard H. Moss

on behalf of the CCSP/SGCR Principals and CCSP0 Staff

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Richard H. Moss

Climate Change Science Program

(Incorporating the USGlobal Change Research Program and the Climate Change Research Initiative)

1717 Pennsylvania Avenue NW, Suite 250

Washington, DC20006

Email: rmos@usgcrp.gov

Telephone: 1 (202) 419-3476

Fax: 1 (202) 223-3908

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TEXT:

I just wanted to take a moment to commend the group, specifically the CSSP staff, for the very thoughtful document you have put together laying out the substance and process for moving the strategy forward. Well done!

Ko Barrett
USAID

> -----Original Message-----

> From: Moss, Richard H [SMTP:Richard.Moss@pn1.gov]

> Sent: Tuesday, February 04, 2003 6:43 PM

> To: wgcc@usgcrp.gov

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> david.conover@hq.doe.gov; robert.marlay@hq.doe.gov; IPO

> Subject: Guidance for revision of Strategic Plan

>

> Dear Working Group Co-Chairs and Lead Authors -

>

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> This message contains guidance on how to proceed with revision of the
> draft Strategic Plan. You will find two PDF attachments: a guidance memo
> and a schedule. If you have difficulties with either file, please contact
> Ms. Sandy MacCracken (smaccrac@usgcrp.gov <mailto:smaccrac@usgcrp.gov>
> 202.419.3483) or Ms. Leslie Branch (lbranch@usgcrp.gov
> <mailto:lbranch@usgcrp.gov> 202.223.6262 (x3460). In addition, WG
> co-chairs and lead authors will receive an express package that contains
> hardcopy of these items as well as other materials to facilitate your
> work.

> Please make note of a few key milestones:

> 24 and 26 February: Half-day retreats for WG co-chairs, and lead authors
> the CCSP/SGCR principals,
> 28 February: NRC comments expected
> 7 March: CCSP/SGCR principals, IWG co-chairs, and lead author meeting on
> NRC comments and next steps
> 24 March: Drafts due
> April: Technical and high-level review processes and additional periods
> for revision (as noted)
> 30 April: Launch of final draft via <climatescience.gov>
> 31 May: Annotated comments due

> Locations and times of the above meetings will be provided as soon as
> possible.

> Thank you for your time and attention to this very important undertaking.

> Sincerely,

> Richard H. Moss
> on behalf of the CCSP/SGCR Principals and CCSP Staff

> Richard H. Moss
> Climate Change Science Program
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> Change Research Initiative)
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> << File: WGCCguidanceDRAFT_4Feb03.pdf >> << File:
> stratplan2003_chron_4Feb03.pdf >>

- att1.htm===== ATTACHMENT 1 =====

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<TITLE>RE: Guidance for revision of Strategic Plan</TITLE>

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<P>I just wanted to take a moment to
commend the group, specifically the CSSP staff, for the very thoughtful d
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he strategy forward. well done!</P>

Page 4

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Sincerely,

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February 7, 2003 State Department Press Release on U.S.-EU Joint Meeting on Climate Change Science and Technology Research



U.S. DEPARTMENT of STATE

Press Statement
Richard Boucher, Spokesman
Washington, DC
February 7, 2003

United States and European Union Joint Meeting on Climate Change Science and Technology Research

Following is the text of a joint statement issued by the United States and the European Union upon the conclusion of the U.S. – EU Joint Meeting on Climate Change Science and Technology Research.

Begin Text:

“The United States and European Union convened the first bilateral “U.S.-EU Joint Meeting on Climate Change Science and Technology Research” in Washington on February 5-6, 2003, following an invitation from Under Secretary of State for Global Affairs Paula Dobriansky to European Commission Research Commissioner Philippe Busquin. The meeting was conducted under the April 23, 2002 agreement of representatives to the U.S.-EU High Level Dialogue on Climate Change to enhance cooperation on climate-related science and research.

The respective delegations were led by Dr. Harlan Watson, Senior Climate Negotiator and Special Representative of the Department of State for the U.S. side, and by Dr. Anver Ghazi, Head, Global Change Unit of the European Commission Research Directorate-General for the European side.

The U.S. delegation included representatives from the White House Office of Science and Technology Policy, U.S. Climate Change Science Program Office, U.S. Department of Commerce National Oceanic and Atmospheric Administration, U.S. Department of Energy, U.S. Department of State, National Aeronautics and Space Administration, National Science Foundation, and U.S. Agency for International Development. The European Union delegation included representatives from the European Commission Research Directorate-General, selected research experts from European Union Member States, and the Delegation of the European Commission to the United States.

The two sides identified cooperative research activities in six areas: (1) carbon cycle research; (2) aerosol-climate interactions; (3) feedbacks, water vapor and thermohaline circulation; (4) integrated observation systems and data; (5) carbon capture and storage; and (6) hydrogen

technology and infrastructure. Specific topics of potential cooperation in each area are identified in an annex to this statement available at: www.state.gov/g/oes/climate/.

The two sides agreed to designate points of contact to coordinate the development of specific research activities and modalities of cooperation and to monitor the progress of these activities, building on existing cooperative arrangements wherever possible.

The two sides further agreed to review the progress of their cooperation at the next Joint Meeting, which could take place in Italy later this year. Additional topics to be considered then are abrupt climate change including critical thresholds, integrated assessment of mitigation and adaptation options, linkages between climate change management and energy systems transformations, and capacity building for strengthening the involvement of developing countries and young scientists in climate change research and monitoring.”

End Text.

ANNEX—United States and European Union Joint Meeting on Climate Change Science and Technology Research: Specific Topics of Potential Cooperation

The United States and European Union identified cooperative research activities in the six areas at the first bilateral “U.S.-EU Joint Meeting on Climate Change Science and Technology Research” held in Washington on February 5-6, 2003: (1) carbon cycle research; (2) aerosol-climate interactions; (3) feedbacks, water vapor and thermohaline circulation; (4) integrated observation systems and data; (5) carbon capture and storage; and (6) hydrogen technology and infrastructure. Other non-greenhouse gas emitting energy sources (e.g., nuclear energy, renewable energies), although not discussed in detail, were mentioned as worthy for cooperation in future discussions.

Specific topics of potential cooperation in each area include the following:

Carbon Cycle Research

1. Define and implement an integrated and optimized carbon observing system over the atmosphere, land, and oceans, with special emphasis on the carbon budget of North America, Europe, and the North Atlantic region;
2. Coordinate efforts in modeling (future projections, assimilation methods, and analysis of past changes) integration, interpretation, and future data acquisition strategies;
3. Enhance georeferenced carbon cycle data availability and quality; and
4. Develop common assessment methods and state-of-the-art reports.

Aerosol-Climate Interactions

1. Perform studies of aerosols, their influence on clouds, climate, and links to the water cycle in sensitive regions (hot spots) that are strongly affected by anthropogenic emissions (South and East Asia, and the Mediterranean);
2. Improve emission data sets of reactive gases and aerosols from anthropogenic and biomass burning sources;

3. Perform studies on intercontinental transport and chemical transformation of anthropogenic emissions that affect climate and air quality;
4. Advance integrated global/regional earth system modeling to study feedback mechanisms and develop mitigation and adaptation strategies; and
5. Further satellite observations of reactive gases and aerosols and down-scaling through in situ and remote sensing measurements in anchor stations.

Feedbacks and Climate Sensitivity

1. Improve representations of cloud feedbacks in coupled climate models through participation in the Cloud Feedbacks Model Intercomparison Project (CFMIP);
2. Begin to quantify and reduce uncertainty in model predictions through joint work on ensemble approaches to integrated climate change scenarios; and
3. Maintain and enhance participation in joint research on thermohaline circulation.

Integrated Observation Systems and Data

1. Cooperate, within existing international frameworks, to plan and develop the integrated observation systems required to provide the data needed for climate change research;
2. Continue with efforts to combine satellite and in situ global observations that are essential to detect climate change and improve evolving climate models, especially to encourage expanded involvement of developing countries to fill gaps in existing databases;
3. Encourage and further improve the sharing and archiving of climate data and the design of common standards and formats; and
4. Encourage the widest possible participation in the Earth Observation Summit in July 2003 and prepare for appropriate follow-up.

Carbon Capture and Storage

1. Identify potential areas of collaboration on carbon capture and storage;
2. Foster collaborative research and development projects;
3. Identify opportunities to discuss the perspectives of governments and other key stakeholders; and
4. Discuss planning, including research and development, for large integrated sequestration and energy plant projects.

Hydrogen Technology and Infrastructure

1. Development of international codes and standards including testing and certification;
2. Pre-competitive research and development on critical enabling technologies including: polymer electrolyte membrane (PEM) fuel cells, non-precious metal catalysts, high temperature membranes, solid oxide fuel cells, hydrogen storage concepts (e.g., carbon nanostructures and complex metal hydrides), refueling technologies and procedures, and hydrogen production;
3. Data exchange on hydrogen energy technology and fuel cells; and
4. Benchmarking of development and deployment strategies for hydrogen energy technologies and fuel cells.

[End]

AGENDA 2/10/03

DEPUTIES MEETING ON 1605(B) POLICY ISSUES

- 1. Welcome and introduction Bob Card ✓
- 2. Review of accomplishments in the 1605(b) revision process Margot Anderson ✓
 - a. Report from DOE Workshops Margot Anderson ✓
 - b. Report from the USDA Workshop Bill Hohenstein ✓
- 3. Comments on the positions of States Linda Fisher
- 4. Discussion Decision Matrix Bob Card
 - Near terms issues:
 - a. Tiers – Meeting multiple stakeholder needs
 - i. Criteria issues
 - b. Definition of Entities and other reporting levels
 - c. Projects and the crediting system.
 - d. Absolute and intensity metrics
- 5. Next Steps

(b)(5)



Deputies Meeting on Revision of
1605(b) Guidelines

Robert Card

Under Secretary for Energy, Science and Environment,
Department of Energy

Monday, February 10, 2003

001548

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July 8, 2002

The President
The White House
Washington, DC 20500

Dear Mr. President:

The Department of Energy's Voluntary Reporting of Greenhouse Gases program has been operational since 1994. The program records the results of voluntary measures to reduce, avoid, or sequester greenhouse gas emissions. In your February 14, 2002, climate change announcement, you recognized the need to enhance the greenhouse gas registry by improving the program's accuracy, reliability, and verifiability as a means of more effectively promoting innovative and effective ways to reduce greenhouse gas emissions. An enhanced registry will encourage participation by increasing confidence that actions are accurately recorded and credited.

On February, 14, 2002, you:

Directed the Secretary of Energy, in consultation with the Secretary of Commerce, the Secretary of Agriculture, and the Administrator of the Environmental Protection Agency, to propose improvements to the current voluntary emissions reduction registration program under section 1605(b) of the 1992 Energy Policy Act within 120 days. These improvements will enhance measurement accuracy, reliability, and verifiability, working with and taking into account emerging domestic and international approaches.

Directed the Secretary of Energy to recommend reforms to ensure that businesses and individuals that register reductions are not penalized under a future climate policy and to give transferable credits to companies that can show real emissions reductions.

Directed the Secretary of Agriculture, in consultation with the Environmental Protection Agency and the Department of Energy, to develop accounting rules and guidelines for crediting sequestration projects, taking into account emerging domestic and international approaches.

We view the directives to improve the greenhouse gas registry and credit those who voluntarily make real reductions in greenhouse gas emissions as key

components of this Administration's overall climate program. The *National Energy Policy*, the June 11, 2001, climate announcement focusing on science and technology initiatives, and the February 14, 2002, announcement focusing on reaching an 18 percent improvement in greenhouse gas intensity by 2012, clarify the Administration's commitment to:

- Enhance and prioritize research, through the *Climate Change Research Initiative*, to reduce the significant uncertainties that remain on the likely causes and possible long-term effects of global climate change;
- Support focused research and development, through the *National Climate Change Technology Initiative*, to develop and deploy the technologies needed to sustain economic growth and reduce the projected growth in emissions;
- Provide economic incentives to reduce emissions, including tax incentives for hybrid cars, residential solar energy systems, methane capture, combined heat and power systems, and electricity from wind and biomass;
- Encourage voluntary action to achieve real reductions of greenhouse gas emissions and increases in carbon sequestration, in conjunction with more than 60 mandatory, voluntary, and incentive-based Federal programs and similar efforts in the States; and
- Promote new and expanded international cooperation to address climate change, including accelerated adoption of clean energy technologies.

The current Voluntary Reporting of Greenhouse Gases program, created pursuant to the 1992 Energy Policy Act and managed by the Department of Energy's Energy Information Administration (EIA), has been operational since 1994. EIA's *Voluntary Reporting of Greenhouse Gases 2000* contains reports from 222 corporations, associations, and individuals. About half of these reports are "entity" (corporate-wide) reports. In addition, there are 1,882 project-level greenhouse gas and sequestration reports.

In response to your directive, we have undertaken several actions to improve the voluntary greenhouse gas registry and consider options to credit real reductions and sequestration.

First, we initiated simultaneous outreach efforts to the general public; industry; environmental, agricultural, and forestry groups; the financial community; and public policy organizations to solicit views on how to improve the greenhouse gas registry. We also met with fourteen States and several organizations that represent State and local energy and air pollution agencies. We issued a Notice of Inquiry with a 30-day public comment period, which ended June 5, 2002. To date, we have received over 80 sets of comments from a broad cross-section of stakeholders representing a wide range of views. Many written comments came from groups with whom we have met.

Second, we charged an interagency team with identifying options for improving the program. This team critically reviewed the existing Voluntary Reporting of Greenhouse Gases program, examined emerging State programs and international approaches to greenhouse gas reporting, met with stakeholders, and met with managers of analogous government programs in Japan, Australia, and the United Kingdom.

Third, we established an interagency team to identify options for developing accounting rules and guidelines for agriculture and forestry projects. This team is conducting a review of the existing accounting methods for forest and agricultural activities and developing recommendations for establishing standardized reporting guidelines for agriculture and forestry that are consistent with the crediting system.

Fourth, because of the business community's broad interest in voluntary efforts to address climate change, we met with trade associations and companies who may want to take on additional or new agreements to meet the challenge you made in the February 14, 2002, announcement.

Fifth, at your directive, the Department of Energy and the Department of Commerce instituted the cabinet level Committee on Climate Change Science and Technology Integration and the deputies level Interagency Working Group to aggressively move ahead and craft a path forward on our science and technology programs.

During this process, we encountered many significantly different views about what to report, what should "count" as a real reduction, how companies' emissions reductions and carbon sequestration could be credited under future policy, ways to ensure data accuracy, credibility, and transparency, and the importance of consistency between State and Federal reporting systems. We were also encouraged to maintain a fully inclusive process as we consider revisions to the program. The stakeholder process has been very useful and has underscored the need for more thorough public involvement, as outlined below.

We view our primary goal as creating a credible and transparent program to report and credit real reductions that support the national goal of reducing U.S. emissions intensity by 18 percent by 2012. Our discussions – both internally and with our stakeholders – have led us to identify the following recommended improvements to the Voluntary Reporting of Greenhouse Gases program:

1. *Develop fair, objective, and practical methods for reporting baselines, reporting boundaries, calculating real results, and awarding transferable credits for actions that lead to real reductions.* Developing such methods is central to achieving the objective of “measurement accuracy, reliability, and verifiability,” as specified in the February 14, 2002, announcement.
2. *Standardize widely accepted, transparent accounting methods.* In 1994, when DOE’s voluntary greenhouse gas reporting program was launched, accounting methods were deliberately flexible to promote broad participation. Since then, a large body of work on corporate and project-level emissions, reductions, and sequestration accounting has been developed. The revised and standardized voluntary reporting program will take these methods into consideration and establish a systematic and transparent approach for updating accounting rules as they evolve.
3. *Support independent verification of registry reports.* As the current voluntary program evolves from a reporting program toward a crediting program, it is important to ensure that reports are accurately and consistently prepared and in compliance with specified accounting rules. Requiring independent verification of reports, particularly those that qualify for transferable credits, will enhance the accuracy, acceptability, and credibility of the program.
4. *Encourage reporters to report greenhouse gas intensity (emissions per unit of output) as well as emissions or emissions reductions.* Reporting emissions intensity allows firms to take growth into consideration and is consistent with the overall goal of achieving an improvement in greenhouse gas intensity by 2012. To verify the intensity measures, reporters will need to submit the data necessary to calculate emissions intensity.
5. *Encourage corporate or entity-wide reporting.* The revised voluntary reporting program should encourage corporate or entity-wide reporting. However, many important prospective emission reductions actions, such as those relating to sequestration, energy efficiency, small-scale renewable energy, or actions that reduce greenhouse gases other than carbon dioxide may be difficult to accommodate within the context of entity-wide

emissions reporting. Encouraging entity-wide reporting while allowing for opportunities to report by projects acknowledges the importance of recognizing a broad range of actions and facilitating cost effective ways to reduce direct and indirect emissions.

6. *Provide credits for actions to remove carbon dioxide from the atmosphere as well as for actions to reduce emissions.* Sequestration activities can provide a valuable contribution to meeting our 2012 goal. Providing incentives and recognition for actions to reduce the concentration of greenhouse gases in the atmosphere will facilitate their adoption.
7. *Develop a process for evaluating the extent to which past reductions may qualify for credits.* A process needs to be developed for evaluating these past efforts against the criteria now being developed for consistent and accurate reporting.
8. *Assure the voluntary reporting program is an effective tool for reaching the 18 percent goal.* The enhanced registry and reporting program is one piece of a broad domestic effort to reach our 18 percent goal. It is important to link voluntary programs, such as the Environmental Protection Agency's Climate Leaders and Business Challenges, with reporting guidelines to encourage consistency between private actions and public goals.
9. *Factor in international strategies as well as State-level efforts.* As directed on February 14, 2002, we need to carefully review emerging international approaches, including other national efforts such as those of Australia, Canada, Japan, Denmark, and the United Kingdom (and other Member States of the European Union). In addition, public and private domestic approaches should be closely considered.
10. *Minimize transactions costs for reporters and administrative costs for the Government, where possible, without compromising the foregoing recommendations.*

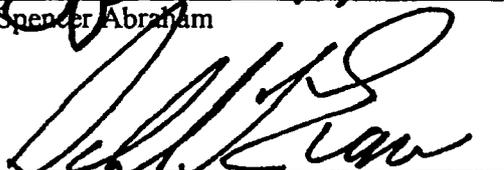
While this effort is considerably more complex than the creation of the program in 1992-1994, we nevertheless propose an expedited process based on these recommendations and additional ideas we expect to emerge from our ongoing outreach efforts. The process, which will culminate in new guidelines by January 2004, (for reporting 2003 data) includes: several stakeholder workshops; sufficient time to update technical guidelines based on analysis and workshops; public comment periods to review the revised guidelines; development of reporting forms, software, and a public-use database; and required Office of Management and Budget review and clearance of new reporting forms.

We will continue to aggressively pursue the improvements directed in the February 14, 2002, announcement. We are convinced that by creating a process that fully engages the many stakeholders who are concerned about climate change, we can develop a reporting and crediting system with broad support that will result in significant and credible actions to help us meet our climate goals.

Sincerely,



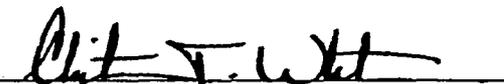
Spencer Abraham



Donald L. Evans



Ann M. Veneman



Christine Todd Whitman

Global Climate & Energy Report No. 199

Date: February 10, 2003

To: Phil Cooney, CEQ

From: Bob Reinstein

Number of pages (including cover sheet): 11

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- Based on GHG emission data for all Annex B countries, now mostly available through 2000, updated emission projections to 2010 have been prepared in accordance with the approach described in earlier GCERs. For most countries, the easier emissions reductions have already been achieved and further reductions are likely to be costly, and painful.
- EU emissions are likely to increase by 2010 to slightly above 1990 levels. The limit of feasible measures is estimated to leave EU total GHG emissions about 5% below 1990, or still short of its 8% reduction target.
- Canada, Iceland, Japan, New Zealand and Norway are all far above their Kyoto targets according to current trends, and most will miss the targets even under the best case scenario.
- Economies in transition will experience declining supply of "hot air" emission reductions by 2008-2012, raising questions about the longer-term approach.

Emissions Projections Show Many Reductions Already Taken

Based on GHG emission data for all Annex B countries, now mostly available through 2000, updated emission projections to 2010 have been prepared in accordance with the approach described in earlier GCERs. The revised projections continue to indicate that, while some countries will meet their Kyoto targets, most will still probably miss. For most countries, the easier emissions reductions have already been achieved and further reductions are likely to be costly, and painful.

Emissions and projections for CO₂ from energy use (fuel consumption) for all Annex B countries are shown in Table 1. Emissions and projections for all GHGs included in the Kyoto targets are shown in Table 2, in million tonnes of CO₂ equivalent. It can be seen that energy-related CO₂ represents the largest share of emissions for all Annex B countries, and therefore that each country's energy situation is the largest factor driving future emission trends.

Overall, Annex B countries are projected to be between 5.6% below and 2.5% above 1990 levels for all GHGs in 2010, and thus the collective target of a 5.2% reduction below 1990 levels can, in principle, be met. With the US not counted, this target is much easier to meet. But this is mainly because of the significant amount of "hot air" emission reductions in countries with economies in transition (CEITs), whose emissions have fallen significantly because of the restructuring of their economies.

The importance of CO₂ reductions is illustrated by Table 1. CO₂ from fuel combustion accounts for roughly 80% of total GHG emissions in most Annex B countries. As discussed in GCER-193, the majority of Annex B countries other than economies in transition failed to meet the unbinding aim of the Convention to return to 1990 levels by 2000, largely because of the growth in CO₂ emissions.

Future emission trends for CO₂ indicate Annex B countries will be between 0.7% and 9.1% above 1990 levels in 2010, despite being 1.7% below 1990 in 2000 thanks to CEIT reductions. The main factors driving the emission increases are economic growth (weaker than earlier estimates but still significant), population growth (especially from net immigration) and consequent energy demands in the electricity, transport and buildings sectors.

Projections Still Rely on Somewhat Uncertain Data

The projections remain difficult to make because of continuing serious gaps and inconsistencies in

the historical emissions data for 1990 through 2000. As noted in earlier GCERs, IEA data are used for CO₂ emissions from fuel combustion because of the greater detail available by sector and by fuel, and because of the greater consistency of these estimates across all countries. FCCC secretariat data are used for other CO₂ emissions and other GHGs covered by the Kyoto targets.

A number of countries have not submitted emission data to the FCCC secretariat for 2000 or even earlier years. For example, the most recent data available on the FCCC website is the following for these countries: Bulgaria (1999), Croatia (1995), Lithuania (1998, with data missing for 1991-1994), Romania (1994), Russia (1996), Slovenia (1990 data only), Ukraine (1998, but with little breakdown by sector or subsector). Even for those countries where data exist for most years from 1990 through 1999, there are some significant discontinuities in some data, with figures for some sectors changing by orders of magnitude from one year to the next.

While the other GHGs are less important in influencing the overall emissions level, these problems have made it necessary to make a number of judgments about ignoring certain data that seem out of line with the longer trends or supplying data estimates for 2000 where these were missing for some countries. The projections should be viewed with a little caution in light of these uncertainties, but in general are considered indicative of the situations of each Annex B country regarding its Kyoto target.

The IEA data, while more complete, also has some gaps and inconsistencies. For example, in 2000, Italy did not separate utility energy use and emissions from that of non-utility generators of heat and electricity ("unallocated auto-producers"). Other countries are simply missing some data elements in 2000 or have anomalous values inconsistent with trends from earlier years.

IEA data for the countries of the former Soviet Union are available only from 1992, and details for 1990 have been estimated based on trends since 1992 and aggregate emission data provided to the FCCC secretariat. Thus, there are considerable uncertainties regarding the reliability of these estimates (and the amount of "hot air" reductions actually occurring in these countries).

The scenarios used for the projections are the same as in earlier years. As explained in earlier GCERs, the Trend Scenario reflects current trends and measures already committed or likely to be committed; it is a little lower than a "business-as-usual" scenario but generally comparable. The Pain Threshold Scenario represents an estimate of the best that is likely to be achievable in light of economic and political feasibility in each country. For countries with economies in transition, Trend is replaced by a high economic growth scenario and Pain Threshold by a low economic growth

scenario.

EU Is Closer to Target, But Probably Still Misses

The EU, as a result of efforts made in several (but not all) Member States, continues to move closer to meeting its 8% Kyoto reduction target by 2010. The largest single factor affecting the overall EU situation is still the large reductions made during the early 1990s in Germany and the UK for reasons other than climate change. This advantage for the EU seems to be declining, based on more recent data trends, but several countries have implemented measures that have helped to offset the increase in emissions that might otherwise have occurred.

As shown in Table 1, large reductions in CO₂ emissions occurred in Germany (due to political reunification), the UK (due to restructuring of the coal and electricity sectors) and Luxembourg (due to closing an old steel mill). Most other EU countries were above 1990 emission levels in 2000, and thus the EU missed its commitment to stabilize CO₂ emissions at 1990 levels by 2000. Only Denmark and Finland also (barely) met this earlier non-binding commitment

The EU as a whole was 1.5% above 1990 CO₂ levels in 2000, but current trends will take it nearly 7% above this level by 2010, unless significant new measures in the energy sector are undertaken. Trends in the transport sector and the electricity sector will make it difficult to find such measures in the time frame of the Kyoto targets, and the push to close nuclear plants in Europe only adds to these difficulties.

When all GHGs included in the Kyoto targets are considered, the EU is much closer to its target, as shown in Table 2. As noted in GCER-194, this is largely because of significant reductions in methane and nitrous oxide emissions. Methane emissions declined by nearly 20% between 1990 and 2000, with the largest reductions coming from coal-seam leaks (59%) and landfills (24%). Livestock emissions also fell, due to a number of factors (including mad-cow disease and gradual reform of the EU Common Agricultural Policy on subsidies). Nitrous oxide emissions declined by over 15% over this same period, with a 56% decline in chemical industry emissions more than offsetting a doubling of transport emissions from increasing use of catalytic converters.

Nevertheless, EU emissions are likely to increase by 2010 to slightly above 1990 levels, i.e., far short of the 8% reduction target. The limit of feasible measures is estimated to leave EU total GHG emissions about 5% below 1990, or still short of the target. The largest single measure that might alter these trends is the facility-specific emission caps that are to be imposed on the largest emitters

under the EU emission trading scheme now agreed at political level. The question is whether EU industry can in the end live with and comply with these caps.

Other OECD Countries Remain Above Kyoto Targets

The other OECD countries (except the three economies in transition) are still mostly in trouble regarding their Kyoto targets. Canada, Iceland, Japan, New Zealand and Norway are all far above their Kyoto targets in the Trend Scenario, as shown in Table 2. Even under the best case of the Pain Threshold Scenario, most miss the targets. Iceland is at least close to its target of a 10% increase, and Switzerland could get below 1990 levels but would still fall considerably short of its 8% reduction target.

The US and Australia are no longer committed to the Kyoto targets, and the latest projections confirm that they would both miss their target by a significant margin even in the best case. Of those that have ratified the Protocol, Canada appears to be in the biggest trouble, but Norway also has serious problems.

The reasons for each country missing its target vary according to national circumstances. For example:

- For Canada and New Zealand (and also the US and Australia), a resource-intensive economy, low population density and high population growth driven by immigration all contribute to significant increases in emissions.
- Japan's situation reflects the already high degree of energy efficiency and limited options for further reductions, as discussed in earlier GCERs.
- For Norway, significant increases in natural gas production and export and a very high dependence on hydro for domestic power are key factors.
- Iceland's increase is connected with construction of a major industrial facility in a country with historical low emissions and few energy options.

The estimates presented here do not include sinks, as the historic data trends and the provisional rules agreed in Bonn and Marrakesh are not sufficiently clear to provide a firm basis for projecting the net emission situation of each country in 2010. It may be that credits from sinks will help some

of these countries in reducing the substantial deficits they have relative to their Kyoto targets, but at this stage it is simply too early to tell.

In any case, the deficits are so large that all of these countries will have to turn to the Kyoto mechanisms for large amounts of credits to have any hope of approaching their Kyoto targets. Earlier GCERs estimated the shortfalls of OECD countries relative to their Kyoto targets in terms of tonnes of CO₂ equivalent emissions annually. Similar calculations based on the latest projections indicate the OECD countries (other than Czech Republic, Hungary and Poland) would have a total potential demand for credits of between 400 million tonnes (Pain Threshold) and 850 million tonnes (Trend) of CO₂ equivalent per year.

These estimates are with the US and Australia out of the picture. With these two countries included, the demand for credits would have been between 1.7 and 2.6 billion tonnes of CO₂ equivalent per year, largely because of the huge US demand (1.3 to 1.7 billion tonnes). As noted in earlier GCERs, it was only the US withdrawal from the Protocol, and from the credit market, that made possible the agreements in Bonn and Marrakesh and the ratification of others in the hope that they might find enough credits for themselves in the reduced market.

Economies in Transition Have All the Surplus Credits

The supply of potential credits to meet the needs of OECD countries is clearly available in theory in the "hot air" reductions that have taken place in the countries with economies in transition. Russia alone has between 610 million and nearly 1 billion tonnes per year of CO₂ equivalent emission allowances that it could in principle sell to other countries.

Others appear to have significant amounts as well, even under the Trend Scenario where their economies grow and begin to emerge as full market economies. For example, Ukraine would have between 360 and 470 million tonnes of potential surplus credits, Poland between 110 and 140 million tonnes, Romania between 70 and 100 million tonnes, and so forth. In total, the CEITs may have between 1.25 and 1.82 billion tonnes of possible surplus credits. These estimates are calculated by comparing the projections in Table 2 with each country's Kyoto target expressed in terms of tonnes of CO₂ equivalent.

It is interesting to note that the aggregate effective target for the economies in transition as a group is only a 2% reduction below 1990 levels, thanks to both Russia and Ukraine having targets of 0%. In contrast, the OECD countries, which have a more difficult time in achieving reductions, have an

aggregate target of about 6.3% below 1990 levels. With the US and Australia included, the OECD target would have been 6.6% (in other words, the US target was stricter than the OECD average).

The main issue now is whether these countries will in fact make the potential supply of credits available in the market, and at what price. As explained in earlier GCERs, it is unlikely that Russia (and others) will simply make the total supply available. How much might be available and under what prices and conditions is still quite up in the air. In fact, Russian ratification is still being held up for analysis of the economic implications of ratification, including the considerations listed in GCER-196.

Some have suggested that credits from JI and CDM projects might compensate for any tightness in credit markets if Russia and other sellers decide to hold back some supply. However, JI credits are already implicitly included in the projections for CEIT emissions. And the rules emerging for the CDM suggest that there will not be any flood of projects with large emission reduction credits once investors see how large the administrative costs and time delays will be for approval of such projects.

Tougher Measures Lie Ahead for OECD Countries

How easy will it be for countries to meet their Kyoto targets? Almost by definition, most of the easier, cheaper reduction measures have already been taken by now. The beginning of the first Kyoto commitment period is less than five years away. With each year, further reductions become more difficult and expensive.

One way to see these trends is to compare emission changes during the first five years after 1990 (or other base year), up to 1995, and the changes between 1995 and 2000. These are shown in Table 3, together with the total changes for 2000 compared to the base year and each country's Kyoto target.

For most countries, the largest reductions in emissions, or smallest increases, came between 1990 and 1995. Among the few exceptions are Belgium, Denmark, Finland, Netherlands, Sweden, Japan and Norway. It appears that the larger reductions or smaller emissions growth between 1995 and 2000 in these countries are the result of a number of measures taken already starting in the early 1990s.

For other countries, the larger reductions or smaller increases in the early 1990s were mostly the

result of circumstances and measures taken that were unrelated to climate change, such as those mentioned above in Germany, the UK, Luxembourg and the structural changes in the economies in transition.

For the EU, these trends suggest it will have trouble meeting its 8% reduction target. The two largest emitters, Germany and the UK, slowed the rate at which they reduced emissions in 1995-2000, and have actually been increasing in the past couple of years. The third largest emitter, France, has managed to hold emissions about even, in line with its burden-sharing target, but the fourth and fifth largest emitters, Italy and Spain, both emitted at increasing rates during the 1990s.

Among other OECD countries, emissions grew more rapidly in the second half of the 1990s than in the first half in Australia, Canada, Iceland and the US, and Switzerland swung from a decrease in 1990-1995 to an increase in 1995-2000. Some of the reasons for these trends were mentioned above.

Among economies in transition, all countries registered substantially larger emission reductions in the first half of the decade than in the second half. Three increased emissions between 1995 and 2000: Croatia, Hungary and Slovenia. This suggests that the supply of “hot air” emission reductions will be declining even more by 2008-2012, and raises serious questions about how these countries might view the EU proposal for more stringent emission targets for 2013-2017.

When might countries begin to realize that the current Kyoto Protocol targets and approach are not working? A pessimistic skeptic might argue that this will not happen until 2013 or later, after all the numbers are in for the first commitment period and the magnitude of the problem is finally fully appreciated.

However, earlier events are likely to force a look in the mirror prior to this. Such developments could include the requirement for an assessment of “significant progress” toward the targets by 2005 and the EU push to begin negotiations on the second commitment period targets by around the same timeframe.

TABLE 1: ANNEX B EMISSIONS: CO2 FROM FUEL CONSUMPTION

COUNTRY	1990	2000	% DIFF.	2010 TREND	% DIFF.	2010 PAIN	% DIFF.
Austria	56.9	62.8	10.3	67.6	18.8	60.2	5.9
Belgium	107.2	120.3	12.1	129.5	20.7	117.7	9.8
Denmark	50.6	50.1	-0.9	55.8	10.3	50.4	-0.3
Finland	55.0	54.8	-0.3	57.8	5.1	54.0	-1.7
France	352.7	373.3	5.8	388.0	10.0	368.1	4.4
Germany	964.1	833.0	-13.6	856.7	-11.1	820.6	-14.9
Greece	70.6	87.8	24.3	95.5	35.3	92.4	30.9
Ireland	30.3	41.2	36.2	47.7	57.5	44.6	47.5
Italy	400.1	425.7	6.4	452.6	13.1	428.7	7.2
Luxembourg	10.5	8.0	-23.2	8.2	-22.2	7.2	-30.9
Netherlands	159.8	177.1	10.8	186.9	17.0	174.6	9.3
Portugal	39.6	59.6	50.5	71.8	81.4	67.4	70.2
Spain	206.5	284.7	37.9	310.1	50.2	280.0	35.6
Sweden	51.2	52.0	1.6	55.2	8.0	51.3	0.2
United Kingdom	559.9	531.5	-5.1	557.7	-0.4	524.5	-6.3
EU-15	3,114.8	3,161.7	1.5	3,325.8	6.8	3,126.8	0.4
Australia	259.7	329.3	26.8	353.6	36.2	339.1	30.6
Bulgaria	75.2	42.7	-43.2	59.7	-34.7	49.1	-46.3
Canada	430.2	526.8	22.4	555.9	29.2	534.1	24.1
Croatia	17.3	17.8	2.8	21.0	21.4	18.5	7.3
Czech Republic	153.8	118.8	-22.8	135.9	-11.6	123.0	-20.0
Estonia	33.0	14.0	-57.6	19.5	-41.9	15.5	-53.8
Hungary	70.5	55.2	-21.7	67.7	-18.1	61.8	-25.3
Iceland	1.9	2.2	13.7	2.3	20.5	2.2	15.3
Japan	1,018.7	1,154.8	13.4	1,210.0	18.8	1,101.1	8.1
Latvia	21.4	6.5	-69.5	11.2	-49.2	7.7	-64.9
Lithuania	31.0	11.2	-63.7	19.9	-39.9	15.0	-54.9
New Zealand	22.3	31.6	41.9	33.4	49.6	31.7	42.3
Norway	28.5	33.6	17.7	38.6	35.2	36.0	26.1
Poland	344.2	292.8	-14.9	311.5	-27.6	283.4	-34.2
Romania	166.9	86.4	-48.2	134.0	-32.1	106.9	-45.8
Russia	2,297.0	1,505.7	-34.4	1,965.6	-17.1	1,641.3	-30.8
Slovakia	55.6	37.8	-31.9	54.8	-8.1	47.5	-20.2
Slovenia	12.5	14.4	15.6	19.9	51.4	17.0	29.4
Switzerland	40.6	41.7	2.7	43.0	5.9	41.5	2.4
Ukraine	660.3	301.0	-54.4	473.2	-31.6	384.0	-44.5
United States	4,825.7	5,665.4	17.4	6,074.0	25.9	5,787.0	19.9
Annex B Total	13,681.1	13,451.7	-1.7	14,930.5	9.1	13,770.4	0.7

TABLE 2: ANNEX B EMISSIONS: SIX KYOTO PROTOCOL GASES

COUNTRY	BASE	2000	% DIFF.	2010 TREND	% DIFF.	2010 PAIN	% DIFF.	TARGET
Austria	85.8	89.2	3.9	93.6	9.0	82.1	-4.3	-13.0
Belgium	141.3	158.5	12.2	167.5	18.5	151.0	6.9	-7.5
Denmark	68.9	67.9	-1.5	72.7	5.4	65.7	-4.7	-21.0
Finland	74.9	71.8	-4.2	74.8	-0.2	69.6	-7.1	0.0
France	545.4	547.0	0.3	551.8	1.2	518.3	-5.0	0.0
Germany	1,202.3	992.6	-17.4	1,009.8	-16.0	961.8	-20.0	-21.0
Greece	101.3	122.1	20.6	129.5	27.8	123.7	22.2	25.0
Ireland	54.6	67.0	22.7	73.7	35.1	68.8	26.2	13.0
Italy	514.1	538.6	4.8	564.6	9.8	533.0	3.7	-6.5
Luxembourg	11.8	9.3	-21.0	9.6	-18.6	8.5	-27.6	-28.0
Netherlands	214.1	223.9	4.6	231.9	8.3	215.6	0.7	-6.0
Portugal	65.2	87.2	33.8	100.5	54.2	93.3	43.2	27.0
Spain	290.3	389.4	34.1	417.0	43.6	380.3	31.0	15.0
Sweden	70.4	70.5	0.1	73.3	4.1	67.7	-3.8	4.0
United Kingdom	748.8	659.0	-12.0	681.6	-9.0	639.3	-14.6	-12.5
EU-15	4,189.2	4,094.0	-2.3	4,252.0	1.5	3,979.1	-5.0	-8.0
Australia	415.8	497.5	19.7	514.4	23.7	491.2	18.1	8.0
Bulgaria	144.7	76.3	-47.3	90.4	-37.5	76.5	-47.1	-8.0
Canada	608.1	736.7	21.2	763.6	25.6	729.9	20.0	-6.0
Croatia	27.8	25.6	-7.6	29.6	6.5	26.4	-4.8	-5.0
Czech Republic	185.9	142.0	-23.6	159.4	-14.2	143.3	-22.9	-8.0
Estonia	39.0	17.2	-55.8	22.4	-42.6	18.1	-53.7	-8.0
Hungary	104.2	83.8	-19.6	98.3	-5.7	89.8	-13.9	-6.0
Iceland	2.8	3.2	12.9	3.4	18.4	3.2	12.4	10.0
Japan	1,256.7	1,381.5	9.9	1,414.2	12.5	1,282.4	2.0	-6.0
Latvia	29.5	11.0	-62.8	15.7	-46.6	11.7	-60.4	-8.0
Lithuania	45.2	20.8	-54.0	27.3	-39.7	21.4	-52.5	-8.0
New Zealand	72.9	81.2	11.4	82.8	13.6	79.0	8.3	0.0
Norway	50.7	57.8	14.0	62.6	23.5	58.4	15.2	1.0
Poland	532.8	376.3	-29.4	392.9	-26.2	359.1	-32.6	-6.0
Romania	267.4	128.6	-51.9	173.7	-35.0	143.4	-46.4	-8.0
Russia	3,031.1	2,006.9	-33.8	2,418.8	-20.2	2,044.6	-32.5	0.0
Slovakia	72.7	49.5	-31.8	64.0	-12.0	55.6	-23.5	-8.0
Slovenia	18.4	19.8	7.7	25.0	35.5	21.1	14.8	-8.0
Switzerland	54.1	54.4	0.5	55.5	2.5	53.4	-1.4	-8.0
Ukraine	907.4	457.5	-49.6	622.1	-31.4	523.5	-42.3	0.0
United States	6,167.3	7,020.7	13.8	7,393.3	19.9	6,998.4	13.5	-7.0
Annex B Total	18,223.5	17,342.5	-4.8	18,681.2	2.5	17,209.4	-5.6	-5.2

TABLE 3: ANNEX B EMISSIONS OF ALL GHGS, 1990, 1995 & 2000

COUNTRY	BASE	1995	2000	1995 VS BASE	2000 VS 1995	2000 VS BASE	TARGET
Austria	85.8	86.4	89.2	0.6	3.3	3.9	-13.0
Belgium	141.3	153.0	158.5	8.3	3.6	12.2	-7.5
Denmark	68.9	76.0	67.9	10.2	-10.7	-1.5	-21.0
Finland	74.9	74.0	71.8	-1.3	-3.0	-4.2	0.0
France	545.4	545.8	547.0	0.1	0.2	0.3	0.0
Germany	1,202.3	1,063.8	992.6	-11.5	-6.7	-17.4	-21.0
Greece	101.3	103.9	122.1	2.6	17.5	20.6	25.0
Ireland	54.6	57.9	67.0	6.1	15.7	22.7	13.0
Italy	514.1	522.6	538.6	1.7	3.1	4.8	-6.5
Luxembourg	11.8	9.3	9.3	-21.1	0.1	-21.0	-28.0
Netherlands	214.1	227.8	223.9	6.4	-1.7	4.6	-6.0
Portugal	65.2	74.1	87.2	13.7	17.7	33.8	27.0
Spain	290.3	320.5	389.4	10.4	21.5	34.1	15.0
Sweden	70.4	73.1	70.5	3.8	-3.5	0.1	4.0
United Kingdom	748.8	693.0	659.0	-7.5	-4.9	-12.0	-12.5
EU-15	4,189.2	4,082.6	4,094.0	-2.5	0.3	-2.3	-8.0
Australia	415.8	435.1	497.5	4.6	14.4	19.7	8.0
Bulgaria	144.7	96.7	76.3	-33.2	-21.1	-47.3	-8.0
Canada	608.1	667.9	736.7	9.8	10.3	21.2	-6.0
Croatia	27.8	23.8	25.6	-14.3	7.7	-7.6	-5.0
Czech Republic	185.9	149.4	142.0	-19.6	-4.9	-23.6	-8.0
Estonia	39.0	18.7	17.2	-52.1	-7.7	-55.8	-8.0
Hungary	104.2	79.0	83.8	-24.2	6.1	-19.6	-6.0
Iceland	2.8	2.9	3.2	3.0	9.7	12.9	10.0
Japan	1,256.7	1,345.8	1,381.5	7.1	2.7	9.9	-6.0
Latvia	29.5	12.6	11.0	-57.4	-12.7	-62.8	-8.0
Lithuania	45.2	21.0	20.8	-53.5	-1.0	-54.0	-8.0
New Zealand	72.9	75.4	81.2	3.4	7.7	11.4	0.0
Norway	50.7	55.6	57.8	9.6	4.0	14.0	1.0
Poland	532.8	411.3	376.3	-22.8	-8.5	-29.4	-6.0
Romania	267.4	159.4	128.6	-40.4	-19.3	-51.9	-8.0
Russia	3,031.1	2,106.9	2,006.9	-30.5	-4.7	-33.8	0.0
Slovakia	72.7	54.9	49.5	-24.5	-9.8	-31.8	-8.0
Slovenia	18.4	13.0	19.8	-29.2	52.0	7.7	-8.0
Switzerland	54.1	53.4	54.4	-1.4	1.9	0.5	-8.0
Ukraine	907.4	562.8	457.5	-38.0	-18.7	-49.6	0.0
United States	6,167.3	6,486.6	7,020.7	5.2	8.2	13.8	-7.0

Annex B Total	18,223. 5	16,914. 6	17,342. 5	-7.2	2.5	-4.8	-5.2
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CEQ 191 PC



"Watson, Harlan L (OES)" <WatsonHL@state.gov>
02/10/2003 07:05:01 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP, Kenneth L. Peel/CEQ/EOP@EOP
cc:
Subject: FW: Request for Correction -- Climate Action Report

FYI

-----Original Message-----

From: Harvey.Reid@epamail.epa.gov [mailto:Harvey.Reid@epamail.epa.gov]
Sent: Monday, February 10, 2003 6:13 PM
To: 'peter.karpoff@hq.doe.gov'; Stokes, Carrie; 'rworrest@usgcrp.gov';
'howard.diamond@noaa.gov'; Samenow.Jason@epamail.epa.gov;
TurekianVC@state.gov; Hockstad.Leif@epamail.epa.gov;
Irving.Bill@epamail.epa.gov
Subject: Request for Correction -- Climate Action Report

For your information - EPA received the following petition today. Our
General Counsel's office is reviewing this.

Reid

----->
| Chris Horner |
| <chorner@cei.org> |
| 02/10/2003 03:06 |
| PM |
----->

>----->
|----->
| To: quality.guidelines@epamail.epa.gov
| cc: aloysius_hogan@epw.senate.gov,
| andrew_wheeler@epw.senate.gov |
| Subject: Request for Correction -- Climate Action Report
|----->
>----->
|----->

002066

CEQ 004292

Please see attached RFC ("FDQA CAR EPA Petition II"), and two referenced attachments in support.

<<FDQA CAR EPA Petition II.doc>> <<FDQA CAR EPA Petition.doc>> <<FDQA EPA Comments.doc>>

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(See attached file: FDQA CAR EPA Petition II.doc)(See attached file:
FDQA CAR EPA Petition.doc)(See attached file: FDQA EPA Comments.doc)



- FDQA CAR EPA Petition II.doc



- FDQA CAR EPA Petition.doc



- FDQA EPA Comments.doc

10 February 2003

Office of Environmental Information
Information Quality Guidelines Staff, Mail Code 28221T
United States Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

**Re: Request for Response to/Renewal of Federal Data Quality Act Petition
Against Further Dissemination of 'Climate Action Report 2002' ("RFC")**

Dear Information Officer,

Pursuant to our 4 June 2002 "Petition under Federal Data Quality Act (FDQA) To Prohibit Further Dissemination of 'Climate Action Report 2002' (CAR)" (attached), we write 1) seeking a substantive response to that Petition, and 2) to formally renew our pending request for "correction" of CAR's fatal data flaws (ceasing dissemination).

As CEI detailed both in its Petition and subsequent Comments on EPA's Proposed FDQA Guidelines (also attached), the White House Office of Management and Budget's (OMB) Interim Final Guidelines for agency compliance with FDQA requirements (66 FR 49718), finalized by OMB's January 3, 2002 Final Guidance (67 FR 369), were expressly "government-wide" (see FDQA Section 515(b)(1)). We continue our proceeding under EPA's finalized "*Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency*", as an "RFC", to the extent these Guidelines further and are not in conflict with OMB's government-wide guidelines and/or FDQA.

As also earlier detailed, particularly in CEI's Comments, to the extent that the United States EPA or any subdivision, branch, or office thereof cites, refers or links to, or otherwise disseminates the CAR (<http://www.epa.gov/globalwarming/publications/car/index.html>), as a product of, *inter alia*, EPA, it is in violation of the FDQA. This is because CAR cites, relies on, and further disseminates data failing to meet FDQA's requirements (see esp. CAR "Chapter 6"). Specifically, CAR disseminates the first National Assessment on Climate Change ("National Assessment" or "NACC") (<http://www.usgcrp.gov/usgcrp/nacc/default.htm>), in violation of FDQA.

This Request, incorporating by reference and attachment both referenced prior submissions, formally reiterates the request that EPA immediately remove all electronic dissemination and cease other dissemination of the CAR, because CAR fails to meet

FDQA's requirements for the same reasons that NACC fails FDQA's requirements and, in relying in significant part upon NACC and re-circulating the discredited data as CAR Chapter 6, in effect constitutes dissemination of the impermissible NACC.

As detailed (attached), FDQA prohibits – and therefore, EPA must cease -- dissemination of CAR as the sole feasible “correction” given the errors’ endemic nature and CAR’s reliance upon and dissemination of the findings of the National Assessment (NACC), because of that document’s rampant violations of the data quality requirements of “**objectivity**” (whether the disseminated information is presented in an *accurate, clear, complete* and *unbiased* manner and is as a matter of substance *accurate, reliable* and *unbiased*), and “**utility**” (the *usefulness* of the information to the *intended users* (per the US Global Change Act of 1990, these are Congress and the Executive Branch)).

This invokes NACC’s and therefore CAR’s inappropriate use of and reliance upon computer models and data that upon scrutiny are demonstrably meaningless. Further, in developing the published version of NACC which CAR relies upon and further disseminates, the US Global Change Research Program (USGCRP) also admittedly failed to perform the necessary science underlying regional and sectoral analyses (that Congress contemporaneously notified USGCRP was a condition precedent to the release of even a draft National Assessment). FDQA ratifies those objections, and is violated by continued dissemination of this product by any federal agency.

As the statutorily designated steering document for policymaking – despite that the particular document at issue admittedly failed to complete the statutory mission required to qualify as a “National Assessment,” and was disavowed by the White House Office of Science and Technology Policy in order to resolve litigation also brought by, *inter alia*, CEI -- NACC qualifies as “influential scientific or statistical information” for purposes of FDQA. Therefore it must meet a “reproducibility” standard, setting forth transparency regarding data and methods of analysis, “as a quality standard above and beyond some peer review quality standards.”

Pursuant to these prior filings and specifically CEI’s pending Petition/RFC, CEI reiterates its request that EPA immediately comply with FDQA and cease dissemination of the National Assessment on Climate Change in whole or part and in any form including any product relying on NACC, *e.g.*, Climate Action Report. We therefore also request that you notify us at your earliest convenience of EPA’s substantive response to the violations set forth in this series of communications and the docket number assigned.

Please do not hesitate to contact me with any questions.

Sincerely,

Christopher C. Horner

enc

June 4, 2002

Administrator Christie Todd Whitman
United States Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

**Re: Petition under Federal Data Quality Act
To Prohibit Further Dissemination of "Climate Action Report 2002"**

Dear Administrator Whitman,

For the reasons detailed herein, to the extent that the United States Environmental Protection Agency ("EPA") or any subdivision, branch, agency or office thereof cites, refers or links to, or otherwise disseminates the "Climate Action Report 2002" ("CAR") (<http://www.epa.gov/globalwarming/publications/car/index.html> or), a product of, *inter alia*, EPA, it is in violation of the Federal Data Quality Act ("FDQA"). **This is because CAR cites, relies on, and further disseminates data failing to meet FDQA's requirements (see esp. CAR "Chapter 6"), presently applicable to EPA (see 67 FR 370). Specifically, CAR disseminates the first National Assessment on Climate Change ("National Assessment" or "NACC") (<http://www.usgcrp.gov/usgcrp/nacc/default.htm>), which is unacceptable under FDQA.**

This petition formally requests that EPA immediately remove all electronic dissemination and cease other dissemination of the CAR.

Specifically, and as detailed below, FDQA prohibits – **and therefore, EPA must cease -- dissemination of CAR given its reliance upon and dissemination of the findings of the National Assessment (NACC) on the basis of that document's failure to satisfy the data quality requirements of "objectivity" (whether the disseminated information is presented in an *accurate, clear, complete* and *unbiased* manner and is as a matter of substance *accurate, reliable* and *unbiased*), and "utility" (the *usefulness* of the information to the *intended users* (per the US Global Change Act of 1990, these are Congress and the Executive Branch). See 67 FR 370. As the statutorily designated steering document for policymaking, NACC qualifies as "influential scientific or statistical information", therefore it must meet a "reproducibility" standard, setting forth transparency regarding data and methods of analysis, "as a quality standard above and beyond some peer review quality standards."**

The reasons, as detailed, *infra*, include NACC's and therefore CAR's inappropriate use of and reliance upon computer models and data that upon scrutiny are demonstrably meaningless. Further, in developing the published version of NACC which CAR further disseminates, the US Global Change Research Program (USGCRP) also admittedly failed to perform the necessary science underlying regional and sectoral analyses (that Congress contemporaneously notified USGCRP was a condition precedent to the release of even a draft National Assessment). FDQA ratifies those objections, and is violated by continued dissemination of this product by any federal agency.

An extensive record obtained through the Freedom of Information Act (FOIA) provides additional evidence requiring a prohibition on further CAR/NACC dissemination. This record exposes that the purported internal "peer review" of the draft NACC did not in fact occur, and also ratifies the inappropriate use of computer models, detailed herein. As the obtained documents demonstrate, commenting parties expressly informed USGCRP that they were rushed and given wildly inadequate time for substantive review or comment. USGCRP published and continues to disseminate the product nonetheless, as do all agencies such as EPA which reference, cite, link or otherwise disseminate NACC directly and/or through the CAR.

All of these failings ensure that dissemination of NACC/CAR violates FDQA's requirement, manifested in OMB's Guidelines and as necessarily manifested by EPA final guidelines, that data disseminated by Federal Agencies meet standards of quality as measured by specific tests for objectivity, utility and integrity.

As you are also aware and as reaffirmed by OMB in its FDQA Final Guidance, though EPA is only now developing agency-specific guidelines and mechanisms, for complaints invoking OMB's Guidelines in the interim EPA should already have in place requisite administrative mechanisms for applying OMB's standards. Please detail these.

I. FDQA Coverage of USGCRP, therefore its Product the NACC, and CAR

However and by whatever government agency NACC, and therefore CAR, are originally produced and/or disseminated they are inescapably covered by FDQA when disseminated by a Federal Agency. First, it is noteworthy that, whatever the status of the governmental office producing NACC, as directed by the Executive Office of the President (EOP), the United States Global Change Research Program (USGCRP), producer of the National Assessment on Climate Change (NACC or Assessment) is subject to the Federal Data Quality Act (FDQA). FDQA covers the same entities as the Paperwork Reduction Act (44 U.S.C. Sections 3501 *et seq.*; see esp. 44 U.S.C. 3502(1)).

By statute the President serves as Chairman of the National Science and Technology Council ("NSTC"), operating under the White House Office of Science and Technology Policy ("OSTP"), and which has under its authority the Committee on Environment and Natural Resources ("CENR") (15 U.S.C. 2932 (originally "Committee on Earth and Environmental Sciences")). All of these offices are therefore EOP entities, subject to PWRA, thus FDQA.

Per 15 U.S.C. 2934 the President, as Chairman of the Council, shall develop and implement through CENR a US Global Change Research Program. The Program shall advise the President and Congress, through the NACC, on relevant considerations for climate policy. Though the composite USGCRP is an "interagency" effort staffed in great part by seconded employees from federal agencies, it remains under the direction of the President and is therefore a "covered agency" pursuant to 44 U.S.C. 3502(1).

Collectively and pursuant to statutory authority, under the direction of these Executive offices the USGCRP directed an effort statutorily dedicated in part to studying the state of the science and its uncertainties surrounding the theory of "global warming" or "climate change," producing a National Assessment on Climate Change ("NACC"). Though originally produced prior to FDQA, the data asserted by the NACC (issued in final in December 2000; see <http://www.usgcrp.gov/usgcrp/nacc/default.htm>), current or continued dissemination is subject to the requirements of the Federal Data Quality Act. Such an argument of "pre-existing study" is not available as regards the CAR, or any other disseminated document under FDQA.

II. Development of NACC

The Assessment was produced as follows:

1. Pursuant to and/or under the auspices of the Global Change Research Act of 1990, 15 U.S.C. 2921, *et seq.*, USGCRP is assigned the responsibility of producing a scientific assessment, particularly that which is at issue in this Petition, as follows:

"On a periodic basis (not less frequently than every 4 years), the Council, through the Committee, shall prepare and submit to the President and the Congress an assessment which –

- (1) integrates, evaluates, and interprets the findings of the [USGCR] Program and discusses the scientific uncertainties associated with such findings;
 - (2) analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; and
 - (3) analyzes current trends in global change both human-induced (sic) and natural, and projects major trends for the subsequent 25 to 100 years." (15 U.S.C. 2934).
2. The document at issue in this Petition, the "First National Assessment on Climate Change," disseminates data rising to the requisite FDQA levels of "quality", as described herein.
 3. USGCRP's surge to release a flawed, partial, and partially unauthorized report came despite requests of lawmakers and outside interests concerned with the

issues at hand to withhold releasing any such document lacking particular required scientific foundations, in violation of several laws and public policy.

III. The Assessment violates the requirements of the FDQA in the following ways:

1. NACC Relies Upon and Promotes Improper Use of Computer Model Data

For the following reasons, NACC violates FDQA's "objectivity" and "utility" requirements. For these same reasons, as "influential scientific or statistical information", NACC also fails FDQA's "reproducibility" standard, establishing transparency requirements for data and methods of analysis, "a quality standard above and beyond some peer review quality standards."

First, consider excerpts from the review of NACC by Patrick Michaels, Professor of Environmental Sciences at University of Virginia, dated and submitted to USGCRP August 11, 2000, detailing the above-noted concerns placing the NACC in violation of FDQA. Where appropriate, additional *explanatory text* is included. **USGCRP made no apparent alterations of the original text in response to these comments, therefore the comments apply to NACC as disseminated.**

"August 11, 2000...

"The essential problem with the USNA [*elsewhere cited in this Petition as the NACC*] is that it is based largely on two climate models, neither one of which, when compared with the 10-year smoothed behavior of the lower 48 states (a very lenient comparison), reduces the residual variance below the raw variance of the data. The one that generates the most lurid warming scenarios—the Canadian Climate Centre (CCC) Model—produces much larger errors than are inherent in the natural noise of the data. That is a simple test of whether or not a model is valid...and both of those models fail. All implied effects, including the large temperature rise, are therefore based upon a multiple scientific failure. The USNA's continued use of those models and that approach is a willful choice to disregard the most fundamental of scientific rules. (And that they did not find and eliminate such an egregious error is testimony to grave bias). For that reason alone, the USNA should be withdrawn from the public sphere until it becomes scientifically based."

Explanatory text: *The basic rule of science is that hypotheses must be verified by observed data before they can be regarded as facts. Science that does not do this is "junk science", and at minimum is precisely what the FDQA is designed to bar from the policymaking process.*

The two climate models used in the NACC make predictions of U.S. climate change based upon human alterations of the atmosphere. Those alterations have been going on for well over 100 years. Do the changes those models "predicted" for U.S. climate in the last century resemble what actually occurred?

This can be determined by comparison of observed U.S. annual temperature departures from the 20th century average with those generated by both of these models. It is traditional to use moving averages of the data to smooth out year-to-year changes that cannot be anticipated by any climate model. This review used 10-year running averages to minimize interannual noise.

The predicted-minus-observed values for both models versus were then compared to the result that would obtain if one simply predicted the average temperature for the 20th century from year to year. In fact, both models did worse than that base case. Statistically speaking, that means that both models perform worse for the last 100 years than a table of random numbers applied to ten-year running mean U.S. temperatures.

There was no discernible alteration of the NACC text in response to this fatal flaw. However, the NACC Synthesis Team, co-chaired by Thomas Karl, Director of the National Climatic Data Center, took the result so seriously that they commissioned an independent replication of this test, only more inclusive, using 1-year, 5-year, 10-year and 25-year running means of the U.S. annual temperature. This analysis verified that in fact both models performed no better than a table of random numbers applied to the U.S. Climate Data. Mr. Karl was kind enough to send the results to this reviewer.

“...the problem of model selection. As shown in Figure 9.3 of the Third Assessment of the United Nations Intergovernmental Panel on Climate Change, the behavior of virtually every General Circulation Climate model (GCM) is the production of a linear warming, despite assumptions of exponential increases in greenhouse forcing. In fact, only one (out of, by my count, 26) GCMs produces a substantially exponential warming—the CCC model [one of the two used in the NACC]. Others may bend up a little, though not substantially, in the policy-relevant time frame. The USNA specifically chose the outlier with regard to the mathematical form of the output. No graduate student would be allowed to submit a thesis to his or her committee with such arrogant bias, and no national committee should be allowed to submit such a report to the American people.

Even worse, the CCC and Hadley data were decadal smoothed and then (!) subject to a parabolic fit, as the caption for the USNA's Figure 6 makes clear. That makes the CCC even appear warmer because of the very high last decadal average.

One of the two models chosen for use in the USNA, the Canadian Climate Center (CCC) model, predicts the most extreme temperature and precipitation changes of all the models considered for inclusion. The CCC model forecasts the average temperature in the United States to rise 8.1°F (4.5°C) by the year 2100, more than twice the rise of 3.6°F (2.0°C) forecast by the U.K. model (the second model used in the USNA). Compare this with what has actually occurred during the past century. The CCC model predicted a warming of 2.7°F (1.5°C) in the United States over the course of the twentieth century, but the observations show that the increase was about 0.25°F (0.14°C) (Hansen, J.E., et al., 1999: GISS analysis of surface temperature change. *Journal of Geophysical Research*, 104, 30,997–31,022), or about 10 times less than the forecast [Hansen has since revised this to 0.5°C, which makes the prediction three times greater than what has

been observed].... The CCC forecast of precipitation changes across the United States is equally extreme. Of all the models reviewed for inclusion in the USNA, the CCC model predicted more than twice the precipitation change than the second most extreme model, which interestingly, was the U.K. model [the other model used in the NACC]. The U.K. model itself forecast twice the change of the average of the remaining, unselected models. Therefore, along with the fact that GCMs in general cannot accurately forecast climate change at regional levels, the GCMs selected as the basis for the USNA conclusions do not even fairly represent the collection of available climate models.

Why deliberately select such an inappropriate model as the CCC? [Thomas Karl, co-Chair of the NACC synthesis team replied that] the reason the USNA chose the CCC model is that it provides diurnal temperatures; this is a remarkable criterion given its base performance....”

“The USNA’s high-end scenarios are driven by a model that 1) doesn’t work over the United States; 2) is at functional variance with virtually every other climate model. It is simply impossible to reconcile this skewed choice with the rather esoteric desire to include diurnal temperatures...”

Explanatory text: It is clear that the NACC chose two extreme models out of a field of literally dozens that were available. This violates the FDQA requirements for “objectivity” detailed in the third paragraph of this Petition.

Second, Dr. Michaels is clearly not alone in his assessment. The following are excerpts from comments by government reviewers, received and possessed by USGCRP, or USGCRP’s “peer reviewers” failed attempts to elevate the NACC to the level of scientific product. For example, consider that styled “Improper use of climate models”, by William T. Pennell of Northwest National Laboratory, submitted through DOE (John Houghton) to Melissa Taylor at USGCRP:

“Although it is mentioned in several places, greater emphasis needs to be placed on the limitations that the climate change scenarios used in this assessment have on its results. First, except for some unidentified exceptions, only two models are used. Second, nearly every impact of importance is driven by what is liable to happen to the climate on the regional to local scale, but it is well known that current global-scale models have limited ability to simulate climate effects as this degree of spatial resolution. We have to use them, but I think we need to be candid about their limitations. Let’s take the West [cites example]...Every time we show maps that indicate detail beyond the resolution of the models we are misleading the reader.”

USGCRP received other comments by governmental “peer reviewers” affirming these clear, significant, indeed disqualifying modeling data transgressions:

“Also, the reliance on predictions from only two climate models is dangerous”. Steven J. Ghan, Staff Scientist, Atmospheric Sciences and Global Change, Pacific Northwest Laboratory.

“This report relies too much on the projections from only two climate models. Projections from other models should also be used in the assessment to more broadly sample the range of predicted responses.” Steven J. Ghan Staff Scientist, Atmospheric Sciences and Global Change, Pacific Northwest Laboratory.

“Comments on National Assessment. 1. The most critical shortcomings of the assessment are the attempt to extrapolate global-scale projections down to regional and sub-regional scales and to use two models which provide divergent projections for key climatic elements.” Mitchell Baer, US Department of Energy, Washington, DC.

“General comments: Bias of individual authors is evident. Climate variability not addressed... Why were the Hadley and Canadian GCMs used? Unanswered questions. Are these GCM’s [sic] sufficiently accurate to make regional projections? Nope”. Reviewer Stan Wullschleger (12/17/99).

William T. Pennell, Manager, Atmospheric Sciences and Global Change, Pacific Northwest Laboratory, cites the that “only two models are used” as a “limitation” on the product.

The final NACC currently disseminated by Commerce/NOAA shows these admonitions went unheeded. Therefore, the CAR disseminated by EPA manifests these same FDQA violations by specifically relying on NACC as described herein.

Stated simply, the climate models upon which NACC relies have struck out. Strike one: they can't simulate the current climate. Strike two: they falsely predict greater and more rapid warming in the atmosphere than at the surface -- the opposite is happening (see *e.g.*, http://www.gchcc.msfc.nasa.gov/MSU/hl_sat_accuracy.html). Strike three: they predict amplified warming at the poles, which are cooling instead (see *e.g.*, <http://www.washingtonpost.com/wp-dyn/articles/A40974-2002Jan13.html>). Worse, NACC knowingly misuses the data demonstrably non-utile for their purported purpose.

2. Failure to Perform Requisite Scientific Review Violates FDQA

USGCRP’s development of NACC drew congressional attention to particular shortcomings. Specifically, leaders in the United States House of Representatives repeatedly attempted to herd USGCRP and its subsidiary bodies to follow the scientific method regarding particular matters, specifically the regional and sectoral analyses. Indeed the concerns had become so acute that these leaders were compelled to promote a restriction prohibiting relevant agencies from expending appropriated monies upon the matter at issue, unless consistent with the plain requirements of the GCRA of 1990, through language in the conference report accompanying Public Law 106-74:

“None of the funds made available in this Act may be used to publish or issue an assessment required under section 106 of the Global Change Research Act of 1990 unless (1) the supporting research has been subjected to peer review and, if not otherwise publicly available, posted electronically for public comment prior to use in the assessment; and (2) the draft assessment has been published in the Federal Register for a 60 day public comment period.”¹

USGCRP did not perform the conditions precedent for valid science as reaffirmed in that language. Instead USGCRP produced and now disseminates a NACC knowingly and expressly without the benefit of the supporting science which not only is substantively required but which Congress rightly insisted be performed and subject to peer review prior to releasing any such assessment. EPA thereby disseminates a CAR flawed for the very same reasons.

These attempts to rectify certain NACC shortcomings were made in advance of USGCRP producing the NACC, but were never rectified. These failures justify Petitioners’ request that USGCRP cease present and future NACC dissemination unless and until its violations of FDQA are corrected. In addition to NACC violating FDQA’s “objectivity” and “utility” requirements, as “influential scientific or statistical information”, NACC also fails its “reproducibility” standard, setting forth transparency regarding data and methods of analysis. Per OMB, this represents “a quality standard above and beyond some peer review quality standards.”²

Given USGCRP’s refusal to wait for completion of the underlying science and their response to the relevant oversight chairmen, it is manifest that USGCRP ignored or rejected these lawmakers’ requests, including by the relevant oversight Chairmen and produced a deeply flawed Assessment, knowingly and admittedly issuing a “final” Assessment without having complied with Congress’s direction to incorporate the underlying science styled as “regional and sectoral analyses,”³ while also admitting that the requisite scientific foundation would be completed imminently. For these same reasons dissemination presently violates FDQA.

1 House Report 106-379, the conference report accompanying H.R. 2684, Department of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 2000 (Pub.L. 106-74), p. 137.

2 Attachments “B” establish the record of Congress, detailing for USGCRP its more obvious scientific failures which now lead to NACC now violating FDQA, noting USGCRP’s apparent failure to comply with such conditions and seeking assurance that such circumstances would be remedied. USGCRP via OSTP drafted a response to House Science Committee Chairman Sensenbrenner, evasively failing to specifically address the concerns raised by these Members. Chairmen Sensenbrenner and Calvert specifically took issue and/or disputed these non-responses in the July 20, 2000 letter, reiterating their request for compliance with the law’s requirements. Nonetheless, the failings persist.

3 See Attachments “B”. This despite that the two principal NACC sections are “Regions,” and “Sections.” (see <http://www.gcric.org/nationalassessment/overpdf/1Intro.pdf>).

3. NACC Not in Fact Peer Reviewed, Commenting Parties Make Clear

Finally, NACC suffers from having received no authentic peer review, in violation of FDQA's "objectivity" and "utility" requirements. As "influential scientific or statistical information", for these reasons NACC also fails the "reproducibility" standard, setting forth transparency regarding data and methods of analysis, "a quality standard above and beyond some peer review quality standards."

Once an advisory committee was chartered pursuant to the Federal Advisory Committee Act (FACA) in 1998, Dr. John Gibbons' communication of January 8, 1998 to the first Designated Federal Officer (DFO) Dr. Robert Corell indicates a sense of urgency was communicated to the panel by political officials. Further, statements in the record and major media outlets, including but in no way limited to those from certain anonymous if purportedly well placed sources, indicate a perception among involved scientists that political pressures drove the timing and even content of this draft document. This is manifested by the lack of opportunity to comment for parties whose comment was formally requested as part of a "peer review" of NACC.

This sense of urgency is reflected in, among other places, comments the Cooler Heads Coalition obtained via the Freedom of Information Act, made by parties from the National Laboratories asked by the Department of Energy to comment on the Draft. In addition to an emphasis on speed as opposed to deliberation, the report's emphasis on "possible calamities" to the detriment of balancing comments which were widely offered, and rampant criticism of the reliance on only two significantly divergent models for the pronouncements made, these comments are exemplified by the following samples from well over a dozen such complaints accessed through FOIA, also received by and in the possession of USGCRP:

- 1) "This review was constrained to be performed within a day and a half. This is not an adequate amount of time to perform the quality of review that should be performed on this size document" (Ronald N. Kickert, 12/08/99);
- 2) "During this time, I did not have time to review the two Foundation Document Chapters" (Kickert, 12/20/99);
- 3) "Given the deadline I have been given for these comments, I have not been able to read this chapter in its entirety" (William T. Pennell);
- 4) "UNFORTUNATELY, THIS DOCUMENT IS NOT READY FOR RELEASE WITHOUT MAJOR CHANGES" (CAPS and bold in original)(Jae Edmonds);
- 5) "This is not ready to go!" (William M. Putman).

These comments reflect an alarming implication of timing over substance, and of a product whose final content appears predetermined. Patrick Michaels' comments, and the absence of apparent change in response to his alarming findings, reinforces this

troubling reality. Notably, the product was released and continues to be disseminated without offering an actual peer review or otherwise addressing the concerns expressed.

In conclusion, the National Assessment on Climate Change, and therefore the Climate Action Report 2002 fails to meet FDQA and/or OMB guidelines regarding Data Quality. **As a consequence, EPA must immediately cease electronic and other dissemination of the "Climate Action Report 2002", which relies in part on, cites, and further disseminates (see esp. "Chapter 6"), the unacceptable data provided by the National Assessment on climate Change, as defined by OMB and described, *supra*.**

I look forward to your timely response to this Petition.

Sincerely,

Christopher C. Horner
Counsel

June 3, 2002

USEPA
EPA Northeast Mall
Room B607
401 M Street, SW
Washington DC 20460

Ms. Margaret N. Schneider, Acting Chief Information Officer
U.S. Environmental Protection Agency
Ariel Rios Building, Room 5000 (Mail Code 2810A)
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Attn: Docket ID # OEI-10014

Re: Comments on EPA's Proposed Data Quality Guidelines

Introduction

The White House Office of Management and Budget's (OMB) "government-wide" Interim Final Guidelines for agency compliance with FDQA requirements (66 FR 49718), finalized by OMB's January 3, 2002 Final Guidance (67 FR 369), provide a strong foundation for improving the overall quality of information which the federal government disseminates to the public. However, as Congress acknowledged when passing the Federal Data Quality Act (FDQA)(enacted as Section 515(a) of the FY '01 Treasury and General Government Appropriations Act (P.L. 106-554; H.R. 5658)), individual agencies must promulgate their own conforming Data Quality guidelines addressing the unique characteristics and information products of their programs.

In the interim, OMB's guidelines clearly serve, as styled, as "government-wide" requirements (see FDQA Section 515(b)(1)). Still, it is imperative that each agency electing to draft its own guidelines do so in such a way ensuring they are workable, effective, and entirely consistent with OMB's government-wide standards.

The Competitive Enterprise Institute (CEI) hereby offers formal comments in response to EPA's request for comment on their proposed guidelines under FDQA. These comments address 1) issues relating to all agencies promulgating Data Quality guidelines, incorporating a selection of how various proposed agency guidelines address these important topics, including a) an

example of a satisfactory agency proposal on the issue, if any, and the reasoning for that conclusion, & b) numerous unsatisfactory examples of current agency proposals; and II) a direct example of information currently disseminated by EPA violating FDQA, OMB's "government-wide" guidelines and any EPA guidelines acceptable under FDQA.

Regarding the latter, in sum, EPA currently disseminates significant data that fails the test set forth by FDQA and OMB's government-wide guidelines. Any EPA guideline that would permit the continued dissemination of such data, as exemplified by but in no way limited to the example provided, *infra*, cannot withstand scrutiny as acceptable under either FDQA's or OMB's requirements. The appropriate remedy for such currently disseminated data is withdrawing its dissemination immediately, consistent with OMB's Final Guidelines, applicable to EPA.

I. CROSS-CUTTING ISSUES RELATED TO AGENCY DATA QUALITY GUIDELINES

(1) Exemptions from Applicability of the Data Quality Guidelines

OMB's interagency Data Quality guidelines exempt some types and categories of information. Many other agencies have proposed additional exemptions. *As demonstrated herein, the OMB and additional agency exemptions from the Data Quality guidelines contradict clear congressional intent to the extent that they exempt any information that an agency has in fact made public. Neither OMB nor any other federal agency has authority to make such exemptions.*

OMB's interagency Data Quality guidelines exempt from their coverage certain publicly disclosed federal agency information:

"Dissemination" means agency initiated or sponsored distribution of information to the public (see 5 CFR 1320.3(d) (definition of "Conduct or Sponsor")). Dissemination does not include distribution limited to government employees or agency contractors or grantees; intra- or interagency use or sharing of government information; and responses to requests for agency records under the Freedom of Information Act, the Privacy Act, the Federal Advisory Committee Act or other similar law. This definition also does not include distribution limited to correspondence with individuals or persons, press releases, archival records, public filings, subpoenas or adjudicative processes.

67 FR 8452, 8460 (Feb. 22, 2002).

This definition of “dissemination” is considerably narrower than OMB’s previous definitions of this term in a PRA context. For example, in OMB Circular A-130, at page 3 OMB defined “dissemination” to mean:

... the government initiated distribution of information to the public. Not considered dissemination within the meaning of this Circular is distribution limited to government employees or agency contractors or grantees, intra-or-inter-agency use or sharing of government information, and responses to requests for agency records under the Freedom of Information Act (5 U.S.C. 552) or Privacy Act.

Other agencies have included the OMB exemptions in their proposed Data Quality guidelines. Some agencies have proposed to expand the OMB exemptions, or to add new exemptions. For example:

Retroactivity Exemption (See Issue #2, *infra*)

Several agencies, such as NIH at page 4 of its guidelines, make statements indicating that their guidelines, and the OMB guidelines, will apply only to information that is initially disseminated initially after October 1, 2002. This proposed exemption contradicts OMB’s interagency guidelines specifying their application to information created or originally disseminated prior to October 1, 2002, if an agency continues to disseminate the information after that date.

Case-by-Case Exemption (See Issue #3, *infra*)

Several agencies, including EPA at pages 22-23 of its proposed guidelines, propose application of the PRA’s Data Quality guidelines on a case-by-case basis, rather than application of them to all information disseminated by the agency.

Rulemaking Exemption (See Issue #4)

A number of agencies, including EPA at page 22-23 and the Department of the Treasury at page 6 of their proposed guidelines, have stated that the Data Quality error correction process required by OMB’s interagency Data Quality guidelines will not apply to information in proposed rulemakings, and that any alleged errors will be addressed only through the rulemaking notice and comment process. It is not clear from these proposed exemptions whether the agencies believe that any of the PRA’s Data Quality standards apply to information disseminated during rulemakings.

Adjudicative Processes Exemption

EPA's proposed data quality guidelines, at page 17, substantially expand OMB's adjudicative processes exception by broadening it to include, *inter alia*:

Distribution of information in documents relating to any formal or informal administrative action determining the rights and liabilities of specific parties, including documents that provide the findings, determinations or basis for such actions. Examples include the processing or adjudication or applications for a permit, license, registration, waiver, exemption, or claim; actions to determine the liability of parties under applicable statutes and regulations; and determination and implementation of remedies to address such liability.

The OMB interagency and individual agency Data Quality guidelines are promulgated under and implement the Information Dissemination requirements of the Paperwork Reduction Act ("PRA"). 44 U.S.C. §§ 3504(d)(1), 3516 note. The relevant statutory text and legislative history demonstrate clear congressional intent that these Data Quality guidelines, like the PRA's other Information Dissemination requirements, apply to any and all information that federal agencies have in fact made public.

By contrast to the PRA's separate Collection of Information requirements, there are no statutory exemptions from any of the PRA's Information Dissemination requirements.

OMB's attempt to create exemptions by restricting the definition of "dissemination" in its interagency Data Quality guidelines contradicts Congress' own pervasive and all encompassing use of this term.

OMB's "dissemination" exemptions in its interagency Data Quality guidelines are also inconsistent with OMB's prior, much broader definition of "dissemination" in implementing the PRA's Information Dissemination requirements.

The additional exemptions proposed by other federal agencies also violate clear congressional intent because OMB cannot provide any exemptions from its interagency Data Quality guidelines, and the other agencies have to comply with OMB's interagency guidelines. 44 U.S.C. §§ 3504(d)(1); 3506(a)(1)(B); 3516 note.

2) **Retroactive Application of the Data Quality Guidelines**

In compliance with the statute, each agency's Data Quality guidelines must become effective on October 1, 2002. The guidelines must apply to information being disseminated on or after October 1, regardless of when the information was first disseminated. This retroactivity principle is explicitly enunciated in OMB's February 22, 2002 guidelines, at III.4. All agency guidelines are required to comply with the requirements set forth by OMB in their interagency February 22nd Final Guidelines. 44 U.S.C. §§ 3504(d)(1); 3506(a)(1)(B); 3516 note.

Specifically, see Section II, *infra*, for an example of information currently disseminated which fails to meet FDQA's or OMB's requirements, the remedy for which is withdrawal of such information.

Example(s) of Satisfactory Agency Proposals

Department of Justice

DOJ's draft guidelines state at page 2, "These guidelines will cover information disseminated on or after October 1, 2002, regardless of when the information was first disseminated...."

These guidelines are in full compliance with the retroactivity provision in OMB's February 22nd guidelines.

Example(s) of Unsatisfactory Agency Proposals

National Institutes of Health

The NIH guidelines state at p.4, "The OMB guidelines apply to official information (with the NIH imprimatur) that is released on or after October 1, 2002."

NIH's statement about OMB's guidelines directly contradicts the text of OMB's guidelines which clearly state that they "shall apply to information that the agency disseminates on or after October 1, 2002, regardless of when the agency first disseminated the information." [Emphasis added]

(3) Individual Agency Guidelines Must Comply with OMB's Interagency Guidelines; There Are No Case-By-Case Exemptions From Applicability of the Guidelines

OMB's interagency Data Quality guidelines implement section 3504(d)(1) of the PRA. 44 U.S.C. § 3516 note. Section 3504(d)(1) requires that "with respect to information dissemination, the [OMB] director shall develop and oversee the implementation of policies, principles, standards, and guidelines to apply to Federal agency dissemination of public information, regardless of the form or format in which such information is disseminated...." 44 U.S.C. § 3504(d)(1). All federal agencies subject to the PRA must comply with OMB's interagency Data Quality guidelines when they issue their own Data Quality guidelines. 44 U.S.C. §§ 3504(d)(1); 3506(a)(1)(B); 3516 note. Congress clearly intended OMB's Data Quality guidelines to apply to all information agencies subject to the PRA in fact make public.

Example(s) of Satisfactory Agency Proposals

None

All agency guidelines reviewed appear to try to reduce significantly the binding nature indicated in the OMB guidelines.

Example(s) of Unsatisfactory Agency Proposals

Multiple Agencies

None of the agency proposals reviewed make any reference to the directives of the PRA; they refer only to section 515 of the FY 2001 Consolidated Appropriations Act, the Data Quality Act itself, and ignore the fact that the Data Quality Act expressly states that the Data Quality guidelines are promulgated under and implement the PRA.

EPA's proposal states that its guidelines do not impose any "legally binding requirements or obligations.... The guidelines may not apply to a particular situation based on the circumstances, and EPA retains discretion to adopt approaches on a case-by-case basis that differ from the guidelines, where appropriate." Sec. 1.1. "Factors such as imminent threats to public health or homeland security, statutory or court-ordered deadlines, or other time constraints, may limit or preclude applicability of these guidelines." Sec. 1.2. Information that generally would not be covered by the guidelines includes "information in press releases and similar announcements: These guidelines do not apply to press releases, fact sheets, press conferences or similar communications in any medium that announce, support the announcement or give public notice of information EPA has disseminated elsewhere." Sec. 1.3, Ins. 482-85.

The CDC/ATSDR proposal has lists of information products to which the guidelines do

and do not apply. It also includes press releases and interviews, but does not include “similar announcements,” as does EPA. The umbrella HHS guidelines state that the quality standards do not apply to press releases. Sec. D.3.

The NIH proposal also lists with considerable specificity types of information covered and not covered. Press releases are listed as not covered. There is no qualification as to whether a press release simply announces, supports an announcement, or gives public notice of information the agency has disseminated elsewhere, as in EPA’s proposal. Sec. II, 2. The NIH proposal states that its information dissemination products must conform to the OMB guidelines. Sec. V, 1.

DOT’s proposal states that it contains only “suggestions, recommendations, and policy views of DOT. They are not intended to be, and should not be construed as, legally binding requirements or mandates. These guidelines are intended only to improve the internal management of DOT” Sec. III, b. The DOT proposal is very specific in excluding certain types of information. Information presented to Congress is excluded if it is “not simultaneously disseminated to the public”. III, j. Also excluded are “[p]ress releases and other information of an ephemeral nature, advising the public of an event or activity of a finite duration - regardless of medium”. III, k.

The DOL proposal begins with a Preface that states that the document provides an “overview” of the agency’s “efforts” to ensure and maximize information quality. DOL states that the guidelines are only intended to improve the internal management of the government and “are not intended to impose any binding requirements or obligations on the Department A Departmental agency may vary the application of information quality guidelines in particular situations where it believes that other approaches will more appropriately carry out the purpose of these guidelines or will help an agency to meet its statutory or program obligations.” DOL also specifies certain types of information to which the guidelines do not apply, including press releases, adjudicative processes, policy guidance, and statements of legal policy or interpretation. Sec. on “Scope and Applicability”.

The CPSC proposal states that information is not subject to the guidelines if it states explicitly that it was not subjected to them. P.5.

Finally, all of the above agency proposals exempt material relating or adjudicatory proceedings or processes, including briefs and other information submitted to courts. *See e.g.*, DOT at IV, g.

(4) Inclusion of Rulemaking Information in the FDQA Petition Process

Information present in rulemaking records, both completed and ongoing, comprises much of the information disseminated by federal agencies. Neither the Data Quality Act itself nor OMB's February 22nd agency-wide guidelines exclude rulemaking records from coverage.

Example(s) of Satisfactory Agency Proposals

None

Example(s) of Unsatisfactory Agency Proposals

EPA

EPA's proposed guidelines, at pages 22-23, appear to exclude most rulemaking records from the Data Quality Act petition and correction process:

... where a mechanism by which to submit comments to the Agency is already provided. For example, EPA rulemakings include a comprehensive public comment process and impose a legal obligation on EPA to respond to comments on all aspects of the action. These procedural safeguards assure a thorough response to comments on quality of information. EPA believes that the thorough consideration required by this process meets the needs for the correction of information process. A separate process for information that is already subject to such a public comment process would be duplicative, burdensome, and disruptive to the orderly conduct of the action.

If EPA cannot respond to a complaint in the response to comments for the action (for example, because the complaint is submitted too late to be considered along with other comments or because the complaint is not germane to the action), EPA will consider whether a separate response to the complaint is appropriate. EPA may consider frivolous any complaint which could have been submitted as a timely comment in the rulemaking or other action but was submitted after the comment period.

Treasury

The Treasury Department's proposed guidelines (page 5) also have an improper rulemaking exclusion.

These proposed exclusions could, as a practical matter, remove all EPA and Treasury rulemaking records from coverage under the Data Quality Act. This exclusion is contrary to the letter and intent of the Act.

Moreover, many rulemakings are very lengthy proceedings. Information in a rulemaking public docket may be publicly available for years before the agency takes any action on comments on the information in its promulgation of final rules. Not allowing a Data Quality guidelines petition to correct this information before promulgation of final rules would violate OMB's interagency Data Quality guidelines, which require a timely correction process for correcting errors in all agency information made publicly available, including "preliminary information" used in agency rulemakings:

... agencies shall establish administrative mechanisms allowing affected persons to seek and obtain, where appropriate, *timely correction of information* maintained and disseminated by the agency that does not comply with OMB or agency guidelines. These administrative mechanisms shall be flexible, *appropriate to the nature and timeliness of the disseminated information*, and incorporated into agency information resources management and administrative practices.

i. *Agencies shall specify appropriate time periods* for agency decisions on whether and how to correct the information, and agencies shall notify the affected persons of the corrections made.

ii. If the person who requested the correction does not agree with the agency's decision (including the corrective action, if any), the person may file for reconsideration within the agency. The agency shall establish an administrative appeal process to review the agency's initial decision, *and specify appropriate time limits* in which to resolve such requests for reconsideration.

67 FR 8452, 8459 (Feb. 22, 2002)(emphasis added).

OMB does not believe that an exclusion for preliminary information is necessary and appropriate. It is still important that the quality of preliminary information be ensured and that preliminary information be subject to the administrative complaint-and-correction process.

66 FR 49718, 49720 (Sept. 28, 2001).

(5) Third-Party Submissions of Data to An Agency

Much of the information disseminated by federal agencies is originally developed and submitted by states or private entities. In addition, federal agencies often disseminate research from outside parties, some of which is funded by the agency.

Congress clearly intended the Data Quality guidelines to apply to all information that agencies in fact make public. OMB's guidelines reiterate this (see "Case Study" immediately below). Consequently, all third-party information that an agency disseminates is subject to the Data Quality guidelines.

Where an agency does not use, rely on, or endorse third-party information, but instead just makes it public, the agency might claim it should not have the initial burden of ensuring that the information meets the quality, objectivity, utility and integrity standards required by the Data Quality guidelines. The information remains subject to the Data Quality requirements and correction process through administrative petitions by third parties.

Yet this claim offers a distinction without a difference because when an agency uses, relies on, or endorses third-party information, the agency itself must have the burden of ensuring that the information meets the required quality, objectivity, utility, and integrity standards.

Example(s) of Satisfactory Agency Proposals

Department of Transportation

While not entirely consistent with the PRA's Data Quality requirements, the Department of Transportation at page 8 of its proposal guidelines comes close to meeting these requirements:

The standards of these guidelines apply not only to information that DOT generates, but also to information that other parties provide to DOT, if the other parties seek to have the Department rely on or disseminate this information or the Department decides to do so.

Example(s) of Unsatisfactory Agency Proposals

CPSC, EPA

The Consumer Product Safety Commission on page 3 of its proposed guidelines states "the standards and policies applied to the information generated by CPSC cannot be applied to external information sources".

EPA at pages 14-17 of its proposed guidelines exempts from the Data Quality guidelines most third-party information submitted to the agency.

(6) Use of Third-Party Proprietary Models

Federal agencies often use various models developed by third parties (often government contractors) to formulate policies based upon influential scientific information. The third-party models are sometimes asserted to be confidential and proprietary. Worse, agencies use the involvement of third-party proprietary information to justify withholding related, non-proprietary data, access to which is indispensable to assessing the quality of modeled and other data.

This issue does not involve the concerns that arise when regulated entities are required to submit confidential or proprietary data to an agency pursuant to a regulatory program. Instead, this issue is limited to situations where any agency and a contractor agree to use a model on a proprietary basis to develop influential scientific information.

OMB's interagency Data Quality guidelines require that influential scientific information be reproducible. This reproducibility standard generally requires that the models used to develop such information be publicly available. The OMB guidelines further explain that when public access to models is impossible for "privacy, trade secrets, intellectual property, and other confidentiality protections, an agency "shall apply especially rigorous robustness checks to analytic results and documents what checks were undertaken." 67 F.R. 8452, 8457.

CASE STUDY: ABUSE OF THIRD PARTY MODEL AND "PROPRIETARY" CLAIM

Environmental Protection Agency

We are increasingly concerned about the "third party data (model)" practice that government agencies knowingly or otherwise employ in frustration of public access to important data. EPA has a duty to ensure his practice ceases. By such practice we refer to an agency, say EPA, farming out, *e.g.*, an economic assessment, using a proprietary model then refusing to provide not the model itself but other related data (*e.g.*, assumptions, often provided in whole or part by the agency) critical to assessing the value of such an analysis, on the basis that the information is "proprietary".

This claim is particularly vexing in cases such as EPA's development of proposals for the President's "multi-pollutant" recommendation. In that context the Administration testified to Congress that legislation must meet its criteria, established by such an analysis. There is no way to properly assess whether proposed legislation meets this test, or the validity of that test, when parties cannot view the assumptions dictating the purported benchmark against which bills will be measured.

As an example, CEI have already requested, under the Freedom of Information Act (FOIA), those assumptions employed by/on behalf of EPA in the product underlying the following statement excerpted from Assistant EPA Administrator Jeffrey Holmstead's written testimony before the Senate Environment and Public Works Committee on November 1, 2001:

“We have not modeled the specific provisions in S. 556, but useful information is provided by comparing the analyses EPA and EIA conducted to respond to a request from Senators Smith, Voinovich and Brownback with the analyses responding to a request from Senators Jeffords and Lieberman. In the Smith/ Voinovich/Brownback analysis, when we analyzed SO2 and NOx reduction levels similar to S. 556, mercury reduction levels more modest than S. 556 and no CO2 reductions, we did not find significant impacts on coal production or electricity prices.”

It is CEI’s understanding that EPA requested its outside contractor, ICF, assume unrealistic scenarios regarding the cost and supply of natural gas, or at minimum scenarios running strongly counter to those which ICF itself touts on its own website as likely under any carbon dioxide suppression scheme. CEI expressed our concerns to Mr. Holmstead, who orally assured us that his office would gladly provide us such information even without invoking FOIA. Notwithstanding the seriousness of this proposal and that assurance, it is several months since this assurance and this very straightforward request for information remains unsatisfied, under FOIA or otherwise. This leads us to believe that the Administration is using such a tactic, of farming out studies, to avoid scrutiny of its proposals.

Such withholding is made even more troubling by EPA refusing access to data described and/or provided by EPA to a contractor; it does not request any such contractor’s “model” or other property reasonably subject to “proprietary” claims. By such practice an agency avoids releasing purported proprietary information that it is obligated to refrain from withholding. Still, we are told by certain Administration officers, and it was alluded to by Mr. Holmstead, that the basis for such refusal is a purported “proprietary” nature of the data.

We believe this practice makes for terrible policy and is unacceptable, even without, but certainly given, FDQA’s requirements. OMB’s January 3 publication of “Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility and Integrity of Information Disseminated by Federal Agencies” (Federal Register, Vol. 2, No. 67, p. 369)(see <http://frwebgate3.access.gpo.gov/cgi-bin/waisgate.cgi?WAISdocID=43070613463+0+2+0&WAISaction=retrieve>) assert:

““As we state in new paragraph V.3.b.ii.B.II, ‘In situations where public access to data [sic] and methods will not occur due to other compelling interests, agencies shall apply especially rigorous robustness checks to analytic results and document what checks were undertaken. Agency guidelines *shall*, however, *in all cases, require a disclosure of the specific data sources* that have been used and the specific quantitative methods *and assumptions that have been employed.*” (emphasis added)(p. 374).

We read this to mean that the Office of Management and Budget will refuse to consider any assumptions used in, e.g., the ICF or other model(s) as proprietary. We also read this to indicate OMB recommends other agencies act similarly in promulgating their own

required guidelines. That is, in the name of transparency and reproducibility Congress and OMB have preemptively addressed certain materials requiring disclosure, such that denial under FOIA, privacy agreements, or otherwise is not supportable.

Given that it appears there would not exist any reason, proprietary or otherwise, to refuse the public access to the requested assumptions, we hope OMB and EPA enforce this position at every opportunity, and immediately encourage EPA to make a prohibition against using such tools as barriers to public access to data in its FDQA guidelines. Clearly, if it appears even one agency continues to use such a tactic to shield data on a matter of such major economic significance, Congress surely would intervene and prohibit such outside contracting, period. That is a result that appears easily avoidable, and indeed proscribed by FDQA's requirements.

RECOMMENDED "THIRD PARTY" SOLUTION

General Policy

- In their Data Quality Act guidelines Federal agencies must adopt a general prohibition against use of third-party data or proprietary models.
- Use of third-party data or proprietary models conflicts with the goals and intent of the Data Quality Act.
- Public disclosure of third-party data or models must be required in all but the most unusual circumstances.
- If federal agencies believe they must use third-party data or proprietary models in order to carry out their regulatory duties and functions, then they must have the burden of demonstrating to OMB, before entering into a contract to use the model, that no other option is available and that other safeguards to ensure key information – not the model itself but, *e.g.*, assumptions – remains available to the public.
- Federal agencies' Data Quality guidelines must explain in detail what "especially rigorous robustness checks" will be applied to third-party proprietary models that the agencies and OMB agree must be used and explain how the public will be informed of these "robustness check." The public must be allowed to review and comment on these robustness checks.

Implementation of the General Policy

Prospective Implementation:

Federal agencies must promulgate Data Quality guidelines declaring the general policy on this issue as described above. These guidelines must further state that, before the agencies agree to use a third-party, non-public, proprietary model, they will provide OMB a written justification as to why the agencies have no other option, and await OMB's views before entering into a contract that utilizes an allegedly proprietary model. The written justification to OMB should describe why the agencies cannot:

- Use an existing public model;
- Enter into a contract to develop a new public model;
- Reimburse a contractor so as to convert a proprietary model into a public model.

Agencies should provide public notice of and an opportunity to comment on the above justification.

Retroactive Implementation:

If a federal agency has already agreed to use a third-party proprietary model before it proposes Data Quality guidelines, then the agency must undertake the following actions within 45 days of the date it sends its proposed Data Quality guidelines to OMB for review.

- Provide OMB with a written identification of what third-party proprietary models are being used by the agency;
- Provide OMB with a written explanation of why the agency cannot reimburse the contractors so as to convert third-party proprietary models into public models, or enter into a contract to develop a public model.

Agencies should provide public notice of and an opportunity to comment on the above justification.

(7) Definitions of “Affected Persons”, “Person”

The definition of an “affected person” is fundamental to the operation of the Data Quality Act because it determines who is eligible to file an administrative petition for correction of agency-disseminated information.

OMB's interagency Data Quality guidelines conclude that “affected persons are people who may benefit or be harmed by the disseminated information. This includes persons who are seeking to address information about themselves as well as persons who use information.” 66 FR 49718, 49721 (Sept 28, 2001). Individual agencies must use OMB's broad definition, which

is consistent with the intent of these guidelines: to provide the public with a right to agency disseminated information that meets high Data Quality standards; and with a right to correct any publicly disseminated information that does not meet these standards.

Example(s) of Satisfactory Agency Proposals

OMB

OMB's definition of "affected persons" encompasses anyone who benefits or is harmed by the information including, "both: (a) persons seeking to address information about themselves or about other persons to which they are related are associated; and (b) persons who use the information." OMB's definition is further detailed by their comprehensive definition of "person" which includes individuals, organized groups, corporations, international organization, and governments and government agencies.

Example(s) of Unsatisfactory Agency Proposals

Department of Commerce

Commerce, at 67 FR 22398, 22401, (May 3, 2002), proposes to define "affected person" in an extremely narrow manner:

(1) *Affected person* means a person who meets each of the following three criteria:

(i) The person must have suffered an injury "harm to an identifiable legally-protected interest [sic];

(ii) There must be a causal connection between the injury and the disseminated information-the injury has to be fairly traceable to the disseminated information or decision based on such information, and not the result of independent or unrelated action; and

(iii) It must be likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision.

Department of Labor

The Department of Labor provides no definition of “affected persons.”

(8) Deadline for Deciding a Petition

Setting an appropriate, specific timeframe for agency decisions on information correction petitions is necessary to fulfill one of the key purposes of the Data Quality Act amendments of the PRA – enabling parties to obtain correction of information. It is also required by OMB’s guidelines.

Example(s) of Satisfactory Agency Proposals

Multiple Agencies

Agencies including HHS, the Social Security Administration, and the Nuclear Regulatory Commission have proposed a 45-working-day time limit for the responsible agency to respond to the petition with either: (1) a decision; or (2) an explanation of why more time is needed, along with an estimated decision date.

The HHS and similar proposals are cognizant of: (1) agency responsibility to respond in a timely and informative manner to all petitioners; and (2) that some petitions may require a longer timeframe for a response. These proposals provide agencies with flexibility without allowing open-ended delays in deciding a petition. It should be noted that these proposed guidelines do not include provisions allowing additional response extensions.

Example(s) of Unsatisfactory Agency Proposals

Department of Labor

DOL’s proposed guidelines state that the agency should “try to respond to complaints and appeals within ninety (90) days of their receipt, unless they deem a response within this time period to be impracticable, in light of the nature of the complaint and the agency priorities.”

DOL’s proposal does not require any communication to the petitioner and allows for open-ended delays in responding to requests for correction of information.

(9) Who Decides the Initial Petition?

The selection of the party responsible for acting on information correction petitions is important because this person will have a substantial responsibility for ensuring that one of the primary intents of the PRA is realized – allowing affected persons to obtain necessary correction of federally disseminated information.

Example(s) of Satisfactory Agency Proposals

The Federal Housing Finance Board

The FHFB's proposed guidelines state that the Board's "Chief Information Officer and other personnel responsible for the information will review the underlying data and analytical process used to develop the disputed information to determine whether the information complies with OMB and agency Guidelines and whether and how to correct the information, if appropriate." P. 6.

The FHFB's short correction process statement has several important strong points including: (1) designation of an official with primary responsibility for the correction who did not originate the information; (2) examination of the data in question and the process used to produce it; and (3) determination of whether the information complies with the Data Quality requirements of both the agency and OMB.

Example(s) of Unsatisfactory Agency Proposals

National Science Foundation

NSF does not provide any indication as to the official or organization within the agency responsible for acting on information correction petitions. Other agencies, including the Department of Labor and CFTC provide little or no information on who is responsible for evaluating information correction petitions.

Without knowing who has responsibility for the information correction process, it is difficult to evaluate that process. Furthermore, by failing to indicate the official/organization responsible evaluating information correction petitions, the agencies raise questions as to the extent to which they have thought through their process.

(10) Who Decides Appeals?

The appeal is the last administrative process open to an affected person seeking correction of information. Thus, to fulfill congressional and OMB intent with regard to ensuring the quality of disseminated information, it is important that agencies have a meaningful appeals process able to catch any errors which may have made it through both the initial dissemination quality review and the initial information correction process.

Example(s) of Satisfactory Agency Proposals

Securities and Exchange Commission

The SEC's proposed appeals process (referred to as a "request for staff reconsideration") routes the appeal to an official (usually in the Office of General Counsel) who was not involved in either producing the original data in question or in making the decision on the original request. The SEC's proposal also allows the appeal official to seek the advice of other officials.

This proposal ensures that the decision on any appeal is made by an objective official.

Example(s) of Unsatisfactory Agency Proposals

Department of Treasury

The Department of Treasury has proposed that any administrative appeal of an information correction petition be conducted "... within the Bureau (or Departmental Office), which disseminated the information." P.6.

By failing to provide for independent review of administrative appeals, Treasury's proposal: (1) reduces the likelihood of any errors being recognized on appeal because the appeal would be performed by the same organization which handled both the initial dissemination and the original complaint; and (2) creates a potential conflict of interest.

(11) Must the Agency Correct Information When It Agrees with a Petition?

The Data Quality Act amendments to the PRA explicitly give the public the right to seek and obtain correction of federally disseminated information. Thus, to comply with the law, agencies should be required to correct information disseminations covered by the guidelines.

Example(s) of Satisfactory Agency Proposals

Department of Defense

DOD's proposed guidelines state, "If the PAA [Public Affairs Activity of the relevant DOD Component] agrees with any portion or all of a complainant's request, he will notify the disseminator of the information that the correction must be made, and shall explain the substance of the requested correction. The PAA shall inform the requester, in writing, of the decision and the action taken." Sec. 3.3.5.1.

DOD's proposed guidelines recognize that when a request for an information correction is valid, the information "must" be correct. The DOD procedures would also ensure that the petitioner is informed of the action.

Example(s) of Unsatisfactory Agency Proposals

Department of Labor

DOL's proposed guidelines indicate that, when there is a valid request for information correction, the Department's response will be based on a number of loosely-defined factors including "the agency's more pressing priorities and obligations." P.7.

DOL's proposed guidelines would not implement the Act's legal requirement that affected parties be able to obtain correction of erroneous information. Although under OMB's guidelines agencies "are required to undertake only the degree of correction that they conclude is appropriate for the nature and timeliness of the information involved....," the OMB guidelines do not create exemptions from the correction requirements due to "more pressing issues." 67 F.R. 8452, 8458.

(12) What is the Standard for Rebutting the Presumption of Objectivity Resulting from Peer Review?

The OMB guidelines state that information will generally be presumed to be objective if data and analytic results have been subjected to formal, independent peer review; however, this presumption is rebuttable “based on a persuasive showing by a petitioner in a particular instance.” 67 F.R. 8452, 8454. The OMB guidelines also specify certain standards for agency-sponsored peer reviews. The issue is what will be considered a “persuasive showing” that will overcome the presumption of objectivity under the proposed agency guidelines. For example, if the agency does not comply with majority peer review criticism, views, or recommendations, does a presumption objectivity apply?

Example(s) of Satisfactory Agency Proposals

None

The closest satisfactory example, perhaps, is the DOL proposal, which simply adopts the exact language of the OMB guidelines: “rebuttable based on a persuasive showing by the petitioner in a particular instance”. App. II sec. 3, b, i.

Example(s) of Unsatisfactory Agency Proposals

Multiple Agencies

EPA’s proposed does not address this issue.

The HHS proposal, the CDC/ATSDR proposal, and the NIH proposal do not address this issue.

The DOT proposal does not address this issue.

The CPSC proposal does not even mention peer review.

(13) How is “Influential Information” Defined?

The OMB guidelines define the term “influential;” however, they also provide agencies with some flexibility in adopting their own definition. The OMB guidelines state that “influential” “means that the agency can reasonably determine that dissemination of the information will have or does have a clear and substantial impact on important public policies or important private sector decisions.” 67 F.R. 8452, 8455. The guidelines then state that “[e]ach agency is authorized to define “influential” in ways appropriate for it given the nature and multiplicity of issues for which the agency is responsible.” *Id.* The issue is whether, and how, agencies have deviated from the OMB definition in proposing their own definition of “influential scientific, financial, or statistical information.

Example(s) of Satisfactory Agency Proposals

EPA

The closest to a satisfactory approach might be considered to be EPA’s although it could be considered overly restrictive.

EPA adopts the OMB language, and then specifies several types of information that will generally be considered “influential,” such as those that appear to meet the definition of a significant regulatory action, including an economically significant action, under E.O. 12866, and major scientific and technical work products undergoing peer review.

Example(s) of Unsatisfactory or Less Satisfactory Agency Proposals

Multiple Agencies

HHS simply defines “influential” in the same way as OMB, adding, like OMB, that each of its subsidiary agencies is free to define “influential” in way appropriate for it given the nature and multiplicity of issues for which the agency is responsible. Sec.s 2) I and 4) d.

The CDC/ATSDR proposal does not contain a definition of “influential,” thus it is presumably incorporates OMB’s definition and accepts it as appropriate for its nature and multiplicity of issues. **To the extent the agency understands and agrees with this, that is consistent with FDQA and OMB’s “government-wide” guidelines. Should that or any agency assert that a failure to define “influential,” or other key term, is other than an incorporation and acceptance of OMB’s definition for its own purposes, that is incorrect and inconsistent with FDA and OMB’s “government-wide” guidelines.** Similarly, CPSC does not define “influential”, but simply refer to the OMB guidelines.

The NIH proposal defines “influential” in close conformity with the OMB interim final and final guidelines. Sec. VII.

The DOT proposal contains a very extensive discussion of the meaning of “influential,” extending for almost two pages. In general, the discussion appears to be intended to restrict the situations in which the “influential” requirements will be applied. For example, broad impact is required, so that substantial impact on individual companies would not be included, and the economic impact benchmark is the \$100 million per year from the “economically significant” regulatory action portion of E.O. 12866. Other aspects of the definition of “significant regulatory action” from E.O. 12866 are also incorporated. Sec. XI, a.

DOL has an interesting qualification to “influential”: “Whether information is influential is to be determined on an item-by-item basis rather than by aggregating multiple studies, documents, or other informational items that may influence a single policy or decision.” DOL then defines “influential” using the OMB language, but also provides examples of what meets the definition and what does not. Among the examples of non-influential information products are “fact sheets”, “technical information issuances”, “accident prevention bulletins”, and “studies”. Sec. titled “Information Categories”.

(14) What is “Objective” and “Unbiased” Information on Risks to Human Health, Safety and the Environment?

The Data Quality Act requires agencies to issue guidelines ensuring and maximizing the “objectivity” of all information they disseminate. The OMB guidelines implementing the legislation define “objectivity,” and that definition includes a requirement that information be “unbiased” in presentation and substance. “Objectivity,” along with “unbiased,” is correctly considered to be, under the OMB guidelines, an “overall” standard of quality. 67 Fed. Reg. 8452, 8458. However, the OMB guidelines do not provide any explanation of how to eliminate bias from risk assessment.

For many years, risk assessments conducted by EPA and other federal environmental agencies have been criticized for being biased by the use of “conservative,” policy-driven, “default assumptions”, inferences, and “uncertainty factors” in order to general numerical estimates of risk when the scientific data do not support such quantitation as accurate. When such numerical assumptions are presented in any agency risk characterization, it is likely that members of the public who are unfamiliar with how the agency arrived at such numbers believe that the numbers are based on “sound science.” In actuality, the risk numbers are a result of co-mingling science with policy bias in a manner such that they cannot be disentangled. The question is whether the proposed agency guidelines have attempted to address this issue and how.

Example(s) of Satisfactory Agency Proposals

None

None of the agencies have attempted to address this issue directly. The least objectionable proposal guidelines are those of agencies such as DOT and CPSC, which simply state that the information they disseminate must be “objective” and “unbiased,” in accordance with the OMB guidelines.

Example(s) of Unsatisfactory Agency Proposals

A number of agencies appear to have attempted to effectively avoid this issue in order to continue the practice of employing default assumptions, inferences, and uncertainty factors to generate speculative risk numbers that they believe are necessary to ensure protection of public health. It appears they believe it is necessary to exaggerate risks in order to protect the public, rather than accomplishing that goal through the risk management decision-making process by making explicit policy decisions that are clearly separated from the presentation of scientific data and analysis.

Three agencies' proposed guidelines are examples: EPA, DOL/OSHA, and HHS/CDC/ATSDR. The three proposals bear a strong resemblance to each other. First, in discussing the requirements for risk assessments, they do not refer to the requirement for "objectivity" and "unbiased" data and presentation. Instead, they imply that OMB's requirement to adopt or adapt the quality standards from the Safe Drinking Water Act Amendments substitutes for that requirement. Accordingly, all three agencies state that presentations of risk information must be "comprehensive, informative, and understandable," rather than "objective" and "unbiased."

EPA goes a little further, referring to the use of "assumptions" and incorporating by reference its Science Policy Council Handbook on Risk Characterization. This Handbook was published in December 2000 but is based on its 1995 internal guidance.¹ This EPA risk characterization guidance makes clear that the agency will use policy-driven default assumptions, inferences, and uncertainty factors to generate risk characterizations (e.g., pp. 15, 18, 21, 41, and C-24 of the Handbook and pp. 2 and 3 of the Administrator's Mar. 21, 1995 Memorandum), while at the same time stating that risk characterizations should be "separate from any risk management considerations" (Mar. 1995 Policy Memorandum, p.2) and that numerical risk estimates should be "objective and balanced" (*id.* at p. 4). One passage from the EPA risk characterization Handbook, incorporated into its proposed Data Quality guidelines, is particularly illuminating:

3.2.9 How Do I Address Bias and Perspective?

There is an understood, inherent, EPA bias that in the light of uncertainty and default choices the Agency will decide in the direction of more public health protection than [sic] in the direction of less protection. However, it is not always clear where such bias enters into EPA risk assessments. To the extent it may make a difference in the outcome of your assessment, highlight the relevant areas so that impact will not be overlooked or misinterpreted by the risk manager.

Handbook, p. 41.

Nothing is said about such agency "bias" being overlooked or misinterpreted by the public. In addition, the statement confuses risk management ("protection") with risk "assessment," contrary to other statements of agency policy as indicated above. Inclusion of such readily acknowledged "bias" in agency risk assessments and characterizations disseminated to the public is directly contrary to both the Data Quality legislation and the OMB guidelines. The SDWA amendment quality standards do not take the place of the legislative requirements,

¹ This risk characterization guidance was never subjected to public notice and comment, and the EPA proposed Data Quality guidelines do not inform the public regarding how to obtain it online, though the document can be found at www.epa.gov/osp/spc/2riskchr.htm along with two related policy memoranda from 1995.

interpreted and implemented by OMB, that risk assessments, along with all other agency information disseminated to the public, must be “objective” and “unbiased” as an “overall” quality standard.

(15) Application of the SDWA Health Risk Assessment Standards

OMB’s February 22nd agency-wide guidelines stated that the science quality and risk assessment standards contained in the 1996 amendments to the Safe Drinking Water Act (SDWA), 42 U.S.C. § 300g-1(b)(3)(B), should be adopted or adapted by federal agencies. Agencies should adopt both the SDWA science quality and risk assessment standards unless they conflict with the other federal statutory requirements. If such conflicts do arise, agencies should make every efforts to reconcile the SDWA standards with the conflicting statutory requirements.

There are only two valid reasons why a federal agency should not adopt these standards:

- The agency does not conduct health risk assessment; or
- The SDWA risk assessment standards conflict with the specific risk assessment standards of another federal statute governing the agency.

In the latter case, the agency should identify the conflicting specific risk assessment standards; make every effort to reconcile the conflicting standards with the SDWA standards; and request public comment on both the conflict and the attempt at reconciliation.

Example(s) of Satisfactory Agency Proposals

None

Example(s) of Unsatisfactory Agency Proposals

EPA

EPA’s proposed guidelines at page 9 adopt the SDWA science quality standards but state that EPA will only adapt the SDWA risk assessment standards, without explaining how or why.

(16) Robustness Checks for CBI

OMB’s February 22nd interagency Data Quality guidelines require robustness checks for data, models, or other information that the agency cannot disclose, but which are material to information that the agency does disclose. These robustness checks are critical for ensuring compliance with the Data Quality Act because the public will not be afforded any other mechanism for determining the objectivity, utility, and reproducibility of this non-disclosed

information, which underlies disclosed information. OMB explained in its February 22nd agency-wide guidelines that the “general standard” for these robustness checks is “that the information is capable of being substantially reproduced, subject to an acceptable degree of imprecision.” 67 FR 8452, 8457. Moreover, agencies must disclose “the specific data sources that have been used and the specific quantitative methods and assumptions that have been employed.” *Id.*

Moreover, agency robustness checks for confidential business information (CBI) or proprietary models should be subject to the Data Quality Act petition process.

Consequently, agency guidelines should state:

- Agencies will perform robustness checks meeting OMB’s general standard set forth above.
- Agencies will provide sufficient information to the general public to determine whether that standard has been met.
- The agency’s compliance with these requirements is enforceable through the Data Quality Act petition process.

Example(s) of Satisfactory Agency Proposals

None

Example(s) of Unsatisfactory Agency Proposals

Multiple Agencies

Most agencies’ proposed guidelines are very vague on the robustness check issue, and none specifically state that the agency’s robustness checks, or lack thereof, are subject to the Data Quality Act petition process.

II. MULTIPLE AGENCY EXAMPLE OF CURRENTLY DISSEMINATED INFORMATION FAILING ANY REASONABLE INTERPRETATION OF FDQA/OMB REQUIREMENTS

For the reasons detailed throughout, *supra*, and as further detailed, *infra*, to the extent that EPA and/or any covered agency cites, refers or links to, or otherwise disseminates the following product of, *inter alia*, the White House Office of Science and Technology Policy, it is in violation of FDQA. Further, to the extent any EPA guidelines pursuant to OMB's FDQA guidelines permitting continued dissemination of this product, the first National Assessment on Climate Change ("National Assessment") (<http://www.usgcrp.gov/usgcrp/nacc/default.htm>), that guideline is unacceptable under the Federal Data Quality Act (FDQA).

The above-described and other failings of various draft FDQA guidelines that, facially, would arguably permit continued dissemination of such inappropriate data therefore must be corrected if they are to survive challenge as violative of FDQA.

Specifically, and as detailed below, FDQA prohibits – **and therefore, EPA's FDQA guidelines must prohibit** -- dissemination of the National Assessment (NACC) for its failure to satisfy the data quality requirements of "objectivity" (whether the disseminated information is presented in an *accurate, clear, complete* and *unbiased* manner and is as a matter of substance *accurate, reliable* and *unbiased*), and "utility" (the *usefulness* of the information to the *intended users* (per the US Global Change Act of 1990, these are Congress and the Executive Branch). See 67 FR 370. As the statutorily designated steering document for policymaking, NACC qualifies as "influential scientific or statistical information", therefore it must meet a "reproducibility" standard, setting forth transparency regarding data and methods of analysis, "as a quality standard above and beyond some peer review quality standards."

The reasons, as detailed, *infra*, include NACC's inappropriate use of computer models and data. Further, in developing the published version of NACC, the US Global Change Research Program (USGCRP) also failed to perform the necessary science underlying regional and sectoral analyses that, as Congress notified USGCRP at the time, was a condition precedent to the release of any National Assessment (even a draft). FDQA ratifies those objections, and is violated by continued dissemination of this product by any federal agency.

Additional rationale necessitating a prohibition on further NACC dissemination is provided by an extensive record obtained through the Freedom of Information Act (FOIA), that the purported internal "peer review" of the draft NACC did not in fact occur (this record also ratifies the inappropriate use of computer models, as also detailed). As the obtained documents demonstrate, commenting parties expressly informed USGCRP that they were rushed and as such were not given adequate time for substantive review or comment. USGCRP published and continues to disseminate the product nonetheless, as do all agencies such as EPA which reference, cite, link or otherwise disseminate NACC.

All of these failings ensure that dissemination of NACC violates FDQA's requirement, manifested in OMB's Guidelines and as necessarily manifested by EPA's final guidelines, that data disseminated by Federal Agencies meet standards of quality as measured by specific tests for objectivity, utility and integrity.

As you are also aware and as reaffirmed by OMB in its FDQA Final Guidance, though EPA is only now developing agency-specific guidelines and mechanisms, for complaints invoking OMB's Guidelines in the interim EPA should already have in place requisite administrative mechanisms for applying OMB's standards.

I. FDQA Coverage of USGCRP, and Therefore its Product the NACC

Be it as "third party" data or otherwise, NACC is inescapably covered by FDQA when disseminated by any other Federal Agency. First, it is noteworthy that, whatever the status of the governmental office produced NACC, as directed by the Executive Office of the President (EOP), the United States Global Change Research Program (USGCRP), producer of the National Assessment on Climate Change (NACC or Assessment) is subject to the Federal Data Quality Act (FDQA). FDQA covers the same entities as the Paperwork Reduction Act (44 U.S.C. Sections 3501 *et seq.*; see esp. 44 U.S.C. 3502(1)).

By statute the President serves as Chairman of the National Science and Technology Council ("NSTC"), operating under the White House Office of Science and Technology Policy ("OSTP"), and which has under its authority the Committee on Environment and Natural Resources ("CENR") (15 U.S.C. 2932 (originally "Committee on Earth and Environmental Sciences")). All of these offices are therefore EOP entities, subject to PWRA, thus FDQA.

Per 15 U.S.C. 2934 the President, as Chairman of the Council, shall develop and implement through CENR a US Global Change Research Program. The Program shall advise the President and Congress, through the NACC, on relevant considerations for climate policy. Though the composite USGCRP is an "interagency" effort staffed in great part by seconded employees from federal agencies, it remains under the direction of the President and is therefore a "covered agency" pursuant to 44 U.S.C. 3502(1).

Collectively and pursuant to statutory authority, under the direction of these Executive offices the USGCRP directed an effort statutorily dedicated in part to studying the state of the science and its uncertainties surrounding the theory of "global warming" or "climate change," producing a National Assessment on Climate Change ("NACC"). Though originally produced prior to FDQA, the data asserted by the NACC (issued in final in December 2000; see <http://www.usgcrp.gov/usgcrp/nacc/default.htm>), as current or continued dissemination is subject to the requirements of the Federal Data Quality Act.

II. Development of NACC

The Assessment was produced as follows:

1. Pursuant to and/or under the auspices of the Global Change Research Act of 1990, 15 U.S.C. 2921, *et seq.*, USGCRP is assigned the responsibility of producing a scientific assessment, particularly that which is at issue in this Petition, as follows:

“On a periodic basis (not less frequently than every 4 years), the Council, through the Committee, shall prepare and submit to the President and the Congress an assessment which –

- (1) integrates, evaluates, and interprets the findings of the [USGCR] Program and discusses the scientific uncertainties associated with such findings;
 - (2) analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; and
 - (3) analyzes current trends in global change both human-induced (sic) and natural, and projects major trends for the subsequent 25 to 100 years.” (15 U.S.C. 2934).
2. The document at issue in this Petition, the “First National Assessment on Climate Change,” disseminates data rising to the requisite FDQA levels of “quality”, as described herein.
 3. USGCRP’s surge to release a flawed, partial, and partially unauthorized, report came despite requests of lawmakers and outside interests concerned with the issues at hand, to withhold releasing a such a document lacking particular required scientific foundations, in violation of several laws and public policy.

III. The Assessment violates the requirements of the FDQA in the following ways:

1. NACC Relies Upon and Promotes Improper Use of Computer Model Data

For the following reasons, NACC violates FDQA’s “objectivity” and “utility” requirements. As “influential scientific or statistical information”, NACC also fails for these reasons its “reproducibility” standard, setting forth transparency regarding data and methods of analysis, “a quality standard above and beyond some peer review quality standards.”

First, on behalf of this petition, Patrick Michaels, Professor of Environmental Sciences at University of Virginia, excerpts from his review of the NACC dated and submitted to USGCRP August 11, 2000, detailing concerns noted above that place the NACC in violation of FDQA. Where appropriate, additional *explanatory text* is included. **USGCRP made no apparent**

alterations of the original text in response to these comments, therefore the comments apply to NACC as disseminated.

“August 11, 2000...”

“The essential problem with the USNA [*elsewhere cited in these FDQA Comments as the NACC*] is that it is based largely on two climate models, neither one of which, when compared with the 10-year smoothed behavior of the lower 48 states (a very lenient comparison), reduces the residual variance below the raw variance of the data. The one that generates the most lurid warming scenarios—the Canadian Climate Centre (CCC) Model—produces much larger errors than are inherent in the natural noise of the data. That is a simple test of whether or not a model is valid...and both of those models fail. All implied effects, including the large temperature rise, are therefore based upon a multiple scientific failure. The USNA’s continued use of those models and that approach is a willful choice to disregard the most fundamental of scientific rules. (And that they did not find and eliminate such an egregious error is testimony to grave bias). For that reason alone, the USNA should be withdrawn from the public sphere until it becomes scientifically based.”

Explanatory text: The basic rule of science is that hypotheses must be verified by observed data before they can be regarded as facts. Science that does not do this is “junk science”, and at minimum is precisely what the FDQA is designed to bar from the policymaking process.

The two climate models used in the NACC make predictions of U.S. climate change based upon human alterations of the atmosphere. Those alterations have been going on for well over 100 years. Do the changes those models “predicted” for U.S. climate in the last century resemble what actually occurred?

This can be determined by comparison of observed U.S. annual temperature departures from the 20th century average with those generated by both of these models. It is traditional to use moving averages of the data to smooth out year-to-year changes that cannot be anticipated by any climate model. This review used 10-year running averages to minimize interannual noise.

The predicted-minus-observed values for both models versus were then compared to the result that would obtain if one simply predicted the average temperature for the 20th century from year to year. In fact, both models did worse than that base case. Statistically speaking, that means that both models perform worse for the last 100 years than a table of random numbers applied to ten-year running mean U.S. temperatures.

There was no discernible alteration of the NACC text in response to this fatal flaw. However, the NACC Synthesis Team, co-chaired by Thomas Karl, Director of the National Climatic Data Center, took the result so seriously that they commissioned an independent replication of this test, only more inclusive, using 1-year, 5-year, 10-year and 25-year running means of the U.S. annual temperature. This analysis verified that in fact both models performed no better than a table of random numbers

applied to the U.S. Climate Data. Mr. Karl was kind enough to send the results to this reviewer.

“...the problem of model selection. As shown in Figure 9.3 of the Third Assessment of the United Nations Intergovernmental Panel on Climate Change, the behavior of virtually every General Circulation Climate model (GCM) is the production of a linear warming, despite assumptions of exponential increases in greenhouse forcing. In fact, only one (out of, by my count, 26) GCMs produces a substantially exponential warming—the CCC model [one of the two used in the NACC]. Others may bend up a little, though not substantially, in the policy-relevant time frame. The USNA specifically chose the outlier with regard to the mathematical form of the output. No graduate student would be allowed to submit a thesis to his or her committee with such arrogant bias, and no national committee should be allowed to submit such a report to the American people.

Even worse, the CCC and Hadley data were decadal smoothed and then (!) subject to a parabolic fit, as the caption for the USNA’s Figure 6 makes clear. That makes the CCC even appear warmer because of the very high last decadal average.

One of the two models chosen for use in the USNA, the Canadian Climate Center (CCC) model, predicts the most extreme temperature and precipitation changes of all the models considered for inclusion. The CCC model forecasts the average temperature in the United States to rise 8.1°F (4.5°C) by the year 2100, more than twice the rise of 3.6°F (2.0°C) forecast by the U.K. model (the second model used in the USNA). Compare this with what has actually occurred during the past century. The CCC model predicted a warming of 2.7°F (1.5°C) in the United States over the course of the twentieth century, but the observations show that the increase was about 0.25°F (0.14°C) (Hansen, J.E., et al., 1999: GISS analysis of surface temperature change. *Journal of Geophysical Research*, 104, 30,997–31,022), or about 10 times less than the forecast [Hansen has since revised this to 0.5°C, which makes the prediction three times greater than what has been observed].... The CCC forecast of precipitation changes across the United States is equally extreme. Of all the models reviewed for inclusion in the USNA, the CCC model predicted more than twice the precipitation change than the second most extreme model, which interestingly, was the U.K. model [the other model used in the NACC]. The U.K. model itself forecast twice the change of the average of the remaining, unselected models. Therefore, along with the fact that GCMs in general cannot accurately forecast climate change at regional levels, the GCMs selected as the basis for the USNA conclusions do not even fairly represent the collection of available climate models.

Why deliberately select such an inappropriate model as the CCC? [Thomas Karl, co-Chair of the NACC synthesis team replied that] the reason the USNA chose the CCC model is that it provides diurnal temperatures; this is a remarkable criterion given its base performance....”

“The USNA’s high-end scenarios are driven by a model that 1) doesn’t work over the United States; 2) is at functional variance with virtually every other climate model. It is simply impossible to reconcile this skewed choice with the rather esoteric desire to include diurnal temperatures...”

Explanatory text: *It is clear that the NACC chose two extreme models out of a field of literally*

dozens that were available. This violates the FDQA requirements for "objectivity" detailed in the third paragraph of this Petition.

Second, Dr. Michaels is clearly not alone in his assessment. Consider the comments of government reviewers, all received and possessed by USGCRP. For example, that styled **"Improper use of climate models"**, by William T. Pennell of Northwest National Laboratory, submitted through DOE (John Houghton) to Melissa Taylor at USGCRP:

"Although it is mentioned in several places, greater emphasis needs to be placed on the limitations that the climate change scenarios used in this assessment have on its results. First, except for some unidentified exceptions, only two models are used. Second, nearly every impact of importance is driven by what is liable to happen to the climate on the regional to local scale, but it is well known that current global-scale models have limited ability to simulate climate effects as this degree of spatial resolution. We have to use them, but I think we need to be candid about their limitations. Let's take the West [cites example]...Every time we show maps that indicate detail beyond the resolution of the models we are misleading the reader."

USGCRP received other comments by governmental "peer reviewers" affirming these modeling data transgressions:

"Also, the reliance on predictions from only two climate models is dangerous". Steven J. Ghan, Staff Scientist, Atmospheric Sciences and Global Change, Pacific Northwest Laboratory.

"This report relies too much on the projections from only two climate models. Projections from other models should also be used in the assessment to more broadly sample the range of predicted responses." Steven J. Ghan Staff Scientist, Atmospheric Sciences and Global Change, Pacific Northwest Laboratory.

"Comments on National Assessment. 1. The most critical shortcomings of the assessment are the attempt to extrapolate global-scale projections down to regional and sub-regional scales and to use two models which provide divergent projections for key climatic elements." Mitchell Baer, US Department of Energy, Washington, DC.

"General comments: Bias of individual authors is evident. Climate variability not addressed...Why were the Hadley and Canadian GCMs used? Unanswered questions. Are these GCM's [sic] sufficiently accurate to make regional projections? Nope". Reviewer Stan Wullschleger (12/17/99).

William T. Pennell, Manager, Atmospheric Sciences and Global Change, Pacific Northwest Laboratory, cites the that "only two models are used" as a "limitation" on the product.

The final NACC currently disseminated shows these admonitions went unheeded.

Stated simply, the climate models upon which NACC relies have struck out. Strike one: they can't simulate the current climate. Strike two: they predict greater and more rapid warming in the atmosphere than at the surface. The opposite is happening (see *e.g.*, http://www.ghcc.msfc.nasa.gov/MSU/hl_sat_accuracy.html). Strike three: they predict amplified warming at the poles, which are cooling instead (see *e.g.*, <http://www.washingtonpost.com/wp-dyn/articles/A40974-2002Jan13.html>). On top of this demonstrable lack of utility for their purported purpose, NACC knowingly misuses them.

2. Failure to Perform Requisite Scientific Review Violates FDQA

USGCRP's development of NACC drew congressional attention to particular shortcomings. Specifically, leaders in the United States House of Representatives repeatedly attempted to ensure USGCRP and its subsidiary bodies follow the scientific method regarding particular matters, specifically the regional and sectoral analyses. Indeed the concerns had become so acute that these leaders successfully promoted a restriction prohibiting relevant agencies from expending appropriated monies upon the matter at issue, consistent with the plain requirements of the GCRA of 1990, through language in the conference report accompanying Public Law 106-74:

"None of the funds made available in this Act may be used to publish or issue an assessment required under section 106 of the Global Change Research Act of 1990 unless (1) the supporting research has been subjected to peer review and, if not otherwise publicly available, posted electronically for public comment prior to use in the assessment; and (2) the draft assessment has been published in the Federal Register for a 60 day public comment period."²

USGCRP did not perform the conditions precedent for valid science as cited in that language. Instead USGCRP produced and now disseminates a NACC knowingly and expressly without the benefit of the supporting science which not only is substantively required but which Congress rightly insisted be performed and subject to peer review prior to releasing any such assessment.

These attempts to rectify certain NACC shortcomings were made in advance of USGCRP producing the NACC, but were never rectified. These failures justify Petitioners' request that USGCRP cease present and future NACC dissemination unless and until its violations of FDQA are corrected. In addition to NACC violating FDQA's "objectivity" and "utility" requirements, as "influential scientific or statistical information", NACC also fails its "reproducibility"

² House Report 106-379, the conference report accompanying H.R. 2684, Department of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 2000 (Pub.L. 106-74), p. 137.

standard, setting forth transparency regarding data and methods of analysis. Per OMB, this represents “a quality standard above and beyond some peer review quality standards.”³

Given USGCRP’s refusal to wait for completion of the underlying science and their response to the relevant oversight chairmen, it is manifest that USGCRP ignored or rejected these lawmakers’ requests, including by the relevant oversight Chairmen and produced a deeply flawed Assessment, knowingly and admittedly issuing a “final” Assessment without having complied with Congress’s direction to incorporate the underlying science styled as “regional and sectoral analyses,”⁴ while also admitting that the requisite scientific foundation would be completed imminently. For these same reasons dissemination presently violates FDQA.

3. NACC Not in Fact Peer Reviewed, Commenting Parties Make Clear

Finally, NACC suffers from having received no authentic peer review, in violation of FDQA’s “objectivity” and “utility” requirements. As “influential scientific or statistical information”, for these reasons NACC also fails the “reproducibility” standard, setting forth transparency regarding data and methods of analysis, “a quality standard above and beyond some peer review quality standards.”

Once an advisory committee was chartered pursuant to the Federal Advisory Committee Act (FACA) in 1998, Dr. John Gibbons’ communication of January 8, 1998 to the first Designated Federal Officer (DFO) Dr. Robert Corell indicates a sense of urgency was communicated to the panel by political officials. Further, statements in the record and major media outlets, including but in no way limited to those from certain anonymous if purportedly well placed sources, indicate a perception among involved scientists that political pressures drove the timing and even content of this draft document. This is manifested by the lack of opportunity to comment for parties whose comment was formally requested as part of a “peer review” of NACC.

This sense of urgency is reflected in, among other places, comments the Cooler Heads Coalition obtained via the Freedom of Information Act, made by parties from the National Laboratories asked by the Department of Energy to comment on the Draft. In addition to an emphasis on speed as opposed to deliberation, the report’s emphasis on “possible calamities” to

³ Attachments “B” establish the record of Congress, detailing for USGCRP its more obvious scientific failures which now lead to NACC now violating FDQA, noting USGCRP’s apparent failure to comply with such conditions and seeking assurance that such circumstances would be remedied. USGCRP via OSTP drafted a response to House Science Committee Chairman Sensenbrenner, evasively failing to specifically address the concerns raised by these Members. Chairmen Sensenbrenner and Calvert specifically took issue and/or disputed these non-responses in the July 20, 2000 letter, reiterating their request for compliance with the law’s requirements. Nonetheless, the failings persist.

⁴ See Attachments “B”. This despite that the two principal NACC sections are “Regions,” and “Sections.” (see <http://www.gcric.org/nationalassessment/overvpdf/1Intro.pdf>).

the detriment of balancing comments which were widely offered, and rampant criticism of the reliance on only two significantly divergent models for the pronouncements made, these comments are exemplified by the following samples from well over a dozen such complaints accessed through FOIA, also received by and in the possession of USGCRP:

- 1) "This review was constrained to be performed within a day and a half. This is not an adequate amount of time to perform the quality of review that should be performed on this size document" (Ronald N. Kickert, 12/08/99);
- 2) "During this time, I did not have time to review the two Foundation Document Chapters" (Kickert, 12/20/99);
- 3) "Given the deadline I have been given for these comments, I have not been able to read this chapter in its entirety" (William T. Pennell);
- 4) "**UNFORTUNATELY, THIS DOCUMENT IS NOT READY FOR RELEASE WITHOUT MAJOR CHANGES**" (CAPS and bold in original)(Jae Edmonds);
- 5) "This is not ready to go!" (William M. Putman).

These comments reflect an alarming implication of timing over substance, and of a product whose final content appears predetermined. Patrick Michaels' comments, and the absence of apparent change in response to his alarming findings, reinforces this troubling reality. Notably, the product was released and continues to be disseminated without offering an actual peer review or otherwise addressing the concerns expressed.

In conclusion, the National Assessment on Climate Change fails to meet FDQA and/or OMB guidelines regarding Data Quality. As a consequence, EPA's FDQA Guidelines must prohibit continued dissemination of the NACC, through reliance, reference, link, publication or other dissemination.

Sincerely,

Christopher C. Horner, Esq.

CEQ
450PC

INTERAGENCY WORKING GROUP
on
CLIMATE CHANGE SCIENCE AND TECHNOLOGY
Meeting #04-1

Wednesday, February 11, 2004, 2:00 to 4:00 PM
Department of Commerce, Conference room (#5851)

Time	Item	Discussion Lead
2:00 – 2:05	Introductions	US Card, DOE
2:05 – 2:15	Science Update <ul style="list-style-type: none"> • Program funding • FY04/05 priorities 	Dpty Bodman, Commerce Ari Patrinos, DOE Acting
2:15 – 2:30	Science – NASA perspective	Adminstrator O'Keefe, NASA
2:30 – 2:45	Policy Update <ul style="list-style-type: none"> • Discussion of policy implications of recent events • Review of key dates and issues for CY04 <ul style="list-style-type: none"> ○ Voluntary programs annev Feb 11 ○ Climate strategy annev. Feb 14 ○ NEP annev, May ○ Energy bill ○ Clear Skies 	Chm. Connaughton, CEQ
2:45 – 3:00	Technology Update <ul style="list-style-type: none"> • Program funding and CCTP cross cuts • Update in initiatives (IPHE, CSLF, Gen IV, ITER) • FY04/05 priorities and initiatives under consideration • Draft strategic plan 	US Card / CCTP Dr. Conover, DOE
3:00 – 3:15	Registry (1605(b)) and Voluntary Programs <ul style="list-style-type: none"> • Review of draft guidelines and finalization schedule • Review of registry public comments following release of draft guidelines • Voluntary programs update (Climate Vision/DOE, Climate Leaders/EPA) 	US Card, DOE Asst Admin, Holmstead, EPA
3:20 – 3:30	Agriculture Update <ul style="list-style-type: none"> • Sequestration guidelines • Farm Bill implementation 	Dpty Moseley, AG
3:30 – 3:50	International <ul style="list-style-type: none"> • Review of key events and activities for CY04 <ul style="list-style-type: none"> ○ Bonn Renewable Energy Conf, June 1-4 • IPCC 4th Assessment plan • Other international developments 	US Dobriensky, State
3:50 – 3:55	Cleanup Items <ul style="list-style-type: none"> • Discussion of meeting plan for the year • Discussion of inviting guest presentations 	US Card, DOE
3:55 – 4:00	Next meeting plans and schedule contingency <ul style="list-style-type: none"> • Next meeting (at Energy) – proposed for Tuesday, April 13 	US Card, DOE

CCSP Synthesis and Assessment Products Table of Agency Leads

#	Time Frame for Completion	Topic	Agencies (Participating agencies are subject to change)	Working Group	Contact Point (Contact points are subject to change)
CCSP Goal 1 Improve knowledge of the Earth's past and present climate and environment, including its natural variability, and improve understanding of the causes of observed variability and change					
1.1	October 2004-September 2005	Temperature trends in the lower atmosphere—steps for understanding and reconciling differences.	NOAA (Lead) NASA (Supporting)	Climate Variability and Change Observations	Karl (NOAA) Dodge (NASA) Petty (DOE)
1.2	October 2004-September 2005	Past climate variability and change in the Arctic and at high latitudes.	USGS/NSF (Lead) NOAA/NASA (Supporting)	Climate Variability and Change	Ager (USGS) Verardo (NSF) Calder (NOAA) Abdlatif (NASA) Fernald (DOE)
1.3	October 2006-September 2007	Re-analyses of historical climate data for key atmospheric features. Implications for attribution of causes of observed change.	NOAA/NASA (Lead) DOE (Supporting)	Observations	Laver/Dole (NOAA) Lee (NASA) Petty (DOE)
CCSP Goal 2 Improve quantification of the forces bringing about changes in the Earth's climate and related systems					
2.1	October 2004-September 2005	Updating scenarios of greenhouse gas emissions and concentrations. In collaboration with the CCTP. Review of integrated scenario development and application.	DOE (Lead) NOAA/NASA (Supporting)	Atmospheric Composition Human Contributions Decision Support	Houghton (DOE) Hofman (NOAA) DeCole/Birk/Johnston (NASA)
2.2	October 2004-September 2005	North American carbon budget and implications for the global carbon cycle.	DOE/NOAA/NASA (Lead) USDA/USGS (Supporting)	Carbon Cycle	Dahman (DOE) Wickland/Sheffner (NASA) Hoffman (NOAA) Stokes (USDA) Schulz (USGS)
2.3	October 2006-September 2007	Aerosol properties and their impacts on climate.	NOAA/NASA (Lead)	Atmospheric Composition	Albritton (NOAA) Anderson (NASA) Lunn (DOE)
2.4	October 2006-September 2007	Trends in emissions of ozone-depleting substances, ozone layer recovery, and implications for ultraviolet radiation exposure and climate change.	NOAA/NASA (Lead)	Atmospheric Composition	Albritton (NOAA) Kurylo (NASA) Lunn (DOE)

IWGCCST

#	Time Frame for Completion	Topic	Agencies (Participating agencies are subject to change)	Working Group	Contact Point (Contact points are subject to change)
CCSP Goal 3 Reduce uncertainty in projections of how the Earth's climate and environmental systems may change in the future					
3.1	October 2004-September 2005	Climate models and their uses and limitations, including sensitivity, feedbacks, and uncertainty analysis.	DOE (Lead) NOAA/NASA/NSF (Supporting)	Human Contributions Decision Support Climate Variability and Change Modeling Modeling	Amthor (DOE) Leetmaa (NOAA) Lee (NASA)
3.2	October 2006-September 2007	Climate projections for research and assessment based on emissions scenarios developed through the CCTP.	NOAA (Lead) NSF/DOE (Supporting)		Leetmaa (NOAA) Fehn (NSF) Amthor (DOE)
3.3	October 2006-September 2007	Climate extremes including documentation of current extremes. Prospects for improving projections.	NOAA (Lead) NASA/USGS/DOE (Supporting)	Observations Climate Variability and Change, Data Management	Karl/Miller (NOAA) Lee (NASA) Poore (USGS) Amthor (DOE)
3.4	October 2006-September 2007	Risks of abrupt changes in global climate.	TBD (Lead) NOAA/USGS/EPA/DOE/NSF (Supporting)	Climate Variability and Change	Eakin (NOAA) Gronin (USGS) Graham (EPA) Amthor (DOE) Verardo (NSF)
CCSP Goal 4 Understand the sensitivity and adaptability of different natural and managed ecosystems and human systems to climate and related global changes					
4.1	October 2004-September 2005	Coastal elevation and sensitivity to sea level rise.	USGS/EPA/NOAA (Lead) NASA/DOE (Supporting)	Human Contributions	TBD (USGS) Titus (EPA) Szabados (NOAA) Lindstrom/Friedl (NASA) Palmisano (DOE)
4.2	October 2006-September 2007	State-of-knowledge of thresholds of change that could lead to discontinuities (sudden changes) in some ecosystems and climate-sensitive resources.	TBD (Lead) EPA/NOAA/USGS/DOE/NSF (Supporting)	Ecosystems	Rogers (EPA) Cyr/Scavia (NOAA) Thompson (USGS) Amthor (DOE) NSF contact TBD
4.3	October 2006-September	Relationship between observed ecosystem changes and climate change.	USGS/USDA (Lead) EPA/NOAA/NASA/NSF/USGS/DOE/USAID (Supporting)	Ecosystems	Thompson (USGS) Shaffer (USDA) West (EPA)

#	Time Frame for Completion	Topic	Agencies (Participating agencies are subject to change)	Working Group	Contact Point (Contact points are subject to change)
4.4	October 2006-September 2007	Preliminary review of adaptation options for climate-sensitive ecosystems and resources.	USDA/EPA (Lead) NOAA/NASA/USGS/DOE/USAID (Supporting)	Decision Support	Cyr/Scavia (NOAA) Bontempi (NASA) Amthor (DOE) Shaffer (USDA) Julius (EPA) Cyr/Scavia (NOAA) Turner/Sheffner (NASA) Thompson (USGS) Amthor (DOE) USAID contact TBD
4.5	October 2006-September 2007	Scenario-based analysis of the climatological, environmental, resource, technological, and economic implications of different atmospheric concentrations of greenhouse gases.	Special CCSP mgmt. structure; topical leads among agencies NASA/USGS/EPA/NOAA/DOE (Supporting)	Decision Support	Friedl/Lee (NASA) Clow (USGS) Grambsch (EPA) Goodrich (NOAA) Houghton (DOE)
4.6	October 2006-September 2007	State-of-the-science of socioeconomic and environmental impacts of climate variability.	EPA (Lead) NOAA/NASA/DOE/USAID (Supporting)	Human Contributions Ecosystems	Scheraga (EPA) Simpson (NOAA) Friedl (NASA) Houghton (DOE)
4.7	October 2006-September 2007	Within the transportation sector, a summary of climate change and variability sensitivities, potential impacts, and response options.	DOT (Lead) USGS/DOE (Supporting)	Decision Support	Savonis (DOT) Burkett (USGS) Petty (DOE)
CCSP Goal 5 Explore the uses and identify the limits of evolving knowledge to manage risks and opportunities related to climate variability and change					
5.1	October 2004-September 2005	Uses and limitations of observations, data, forecasts, and other projections in decision support for selected sectors and regions.	NASA (Lead) EPA/NOAA/USGS/DOE (Supporting)	Human Contributions Decision Support	Birk/McPherson (NASA) Bierwagen (EPA) Livezey (NOAA) Berenknopf (USGS) Amthor (DOE)
5.2	October 2004-September 2005	Best practice approaches for characterizing, communicating, and incorporating scientific uncertainty in decisionmaking.	NASA (Lead) EPA/NOAA/USGS/DOE/NSF (Supporting)	Decision Support Communications.	Birk/McPherson (NASA) Gamble (EPA) Simpson (NOAA) Berenknopf (USGS) Ferrell (DOE) O'Connor/Eavey (NSF)

February 11, 2004

IWGCCST

#	Time Frame for Completion	Topic	Agencies (Participating agencies are subject to change)	Working Group	Contact Point (Contact points are subject to change)
5.3	October 2004-September 2005	Decision support experiments and evaluations using seasonal to interannual forecasts and observational data.	NOAA (Lead) NASA/EPA/USGS/USAID/DOE (Supporting)	Decision Support	Nierenberg/Livezey (NOAA) Birk/Habib (NASA) Gamble (EPA) Berenknopf (USGS) Tokar (USAID) DOE contact TBD

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Susanna Eden <seden@usgcrp.gov> (Susanna Eden <seden@usgcrp.gov> [UNKNOWN])

CREATION DATE/TIME: 13-FEB-2003 10:26:27.00

SUBJECT: : HELP Info Session, 19 Feb 2003

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TEXT:

The Special Information Session on the US contributions to UNESCO/WMO Program on Hydrology for Life, Environment and Policy (HELP) will be held in Room 100 of the National Academies of Science Building at 500 5th Street, NW. Registration and coffee begin at 8:30 a.m. An agenda is attached.

If you plan to attend and have not contacted me, please do so by return email or call me at (202) 419-3481, so that I can make sure building security has your name when you arrive.

For those of you coming by Metro, directions are appended below. The parking entrance is right from 6th Street just north of E Street.

By Metro to Gallery Place-Chinatown station (Green or Yellow Line)
Exit the station by following signs to Seventh and F Streets/Arena.
Turn LEFT and walk EAST on F St. N.W., two blocks past the MCI Center.
Turn RIGHT on to Fifth St. N.W.
Walk past the fire station parking lot.
The next building on your RIGHT will be 500 Fifth St. N.W.

By Metro to Judiciary Square station (Red Line)
Exit the station by following signs to the Building Museum (F St.) exit
Turn LEFT and walk WEST on F St. N.W.
Cross Fifth St. N.W. and turn LEFT.
Walk past the fire station parking lot.
The next building on your RIGHT will be 500 Fifth St. N.W.

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**SPECIAL INFORMATION SESSION ON US CONTRIBUTIONS
TO THE UNESCO/ WMO PROGRAM ON
HYDROLOGY FOR LIFE, ENVIRONMENT, AND POLICY (HELP)**

Wednesday, 19 February 2003

National Academies of Sciences
500 5th Street, NW, Washington, Room 100

AGENDA

- 0830 – 0900: Coffee and Registration
- 0900 – 0915: Welcome and Introductions
- 0915 – 1000: Overview of the UNESCO IHP and HELP programs: principles, process and scientific goals (Mike Bonell, UNESCO)
- 1000 – 1030: Overview of US Participation in HELP and related hydrologic programs (Rick Lawford, NOAA)
- 1030 – 1100: Discussion and Coffee
- 1100 – 1200: San Pedro (Robert Varady and Anne Browning-Aiken, U. Arizona)
 - overview
 - science perspective
 - stakeholders perspective
- 1200 – 1230: Red Arkansas Basin (Jean Steiner, USDA Agricultural Research Service)
 - overview
 - science contributions
- 1230 – 1330: Lunch
- 1330 – 1400: Lake Ontario Basin (Gerry Galloway, International Joint Commission)
- 1400 – 1430: Luquillo Mountains, Puerto Rico (Fred Scatena, U. Pennsylvania)
- 1430 – 1500: Lake Champlain (Breck Bowden, U. of Vermont, and William Howland, Lake Champlain Basin Program)
- 1500 – 1515: Hudson Basin (Upmanu Lall, Columbia U.)
- 1515 – 1530: Discussion and Break
- 1530 – 1700: Panel Discussion -- What can the US contribute to HELP as part of its reentry into UNESCO?

Access:

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Turn LEFT and walk WEST on F St. N.W.
Cross Fifth St. N.W. and turn LEFT.
Walk past the fire station parking lot.
The next building on your RIGHT will be 500 Fifth St. N.W.

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:David Dokken <ddokken@usgcrp.gov> (David Dokken <ddokken@usgcrp.gov> [UNKNOWN])

CREATION DATE/TIME:14-FEB-2003 14:06:15.00

SUBJECT:: 24 and 26 Feb Mini-Retreats - Cooney

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC:ddokken@usgcrp.gov (ddokken@usgcrp.gov [UNKNOWN])
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TEXT:
Dear Phil -

Since the *Guidance for revision of Strategic Plan* broadcast (Tue, 04 Feb 2003 15:42) was chock full of information, I wanted to make absolutely sure that you were aware of the near-term Strategic Plan mini-retreats:

24 and 26 February 2003
1:00 - 5:00 p.m.
NSF, Stafford 2, Room 595

A brief logistics broadcast will be sent out next Tuesday to the Principals and WGCC and chapter leads, including a DRAFT agenda among other things.

Please note that the agenda will be set so that most high-level decision/guidance would be handled on 24 February; however, you are certainly welcome and encouraged to participate in the hands-on drafting slated for the 26th.

If you have any questions or concerns, please do not hesitate to contact me.

Dave Dokken
U.S. Global Change Research Program
Climate Change Science Program
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02/13/2003 07:21:07 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP, jim_connaughton@ceq.eop.gov, James Connaughton/CEQ/EOP@EOP
cc:
Subject: FW: Climate Article In Environmental Forum

Jim and Phil: I thought you would be interested in the enclosed article I've just written on climate change and technology. The article will appear this week in the Environmental Forum. You'll see that Dave Garman (DOE) and Eileen Claassen (Pew Center) also contributed short pieces on the topic. I suspect that you'll agree with many parts of the articles but perhaps not with others. There is some gentle criticism of the Administration and i hope you find it constructive.

Feel free to distribute the article to all who may be interested. And by all means, provide any feedback!

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Climate Change

The fractious debate over the Kyoto Protocol has obscured the agreement of most parties — including the Bush administration — that long-term action on global warming is necessary. To achieve the radical transformation of our energy economy required to dramatically lower emissions, the U.S. paradigm of forcing technology change through short-term regulatory mandates will have to be replaced by a new framework of long-range government-industry collaboration

ROBERT M. SUSSMAN

Climate policy in the United States is marked by deep divisions and lack of consensus on a path forward. The central development of the last two years — President Bush's decision to reject the Kyoto Protocol and oppose mandatory greenhouse gas (GHG) controls — has left many climate activists angry and frustrated. In the absence of U.S. participation in Kyoto, some members of Congress and a number of states have proposed "Kyoto-lite" regimes, which apply to particular industry sectors and set emission reduction goals more modest than the Kyoto targets and timetables. Although major states like California and New York may implement such programs, the prospects for legislation at the national level are bleak. With the Republicans controlling the Congress and national security and the economy topping the agenda, there is little likelihood that Congress will agree to adopt near-term caps on GHG emissions for the entire economy or specific industries. As an alternative to such emission limits, the administration is pursuing voluntary initiatives to reduce the GHG intensity of the economy, continuing research on the causes and impacts of climate change, and making limited investments in new energy technologies. While this approach has some positive features, it is unlikely to mollify the president's critics in the United States or abroad or create a durable bipartisan foundation for future U.S. climate policy.

To break the political log-jam on climate, policymakers on the left and right need to move beyond the increasingly polarized and unproductive debate over near-term emission control measures modeled on the Kyoto framework. Instead, we need a new policy dynamic which recognizes the shortcomings

of Kyoto-type approaches but responds proactively to the climate challenge. Three positive developments could form the basis for this dynamic.

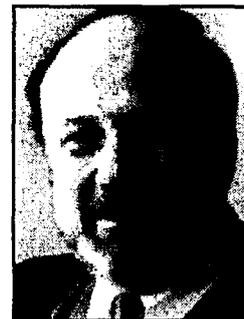
First, despite remaining uncertainties, there is growing agreement — on the part of the Bush administration and most industry leaders in addition to scientists and policymakers — that industrial activities are contributing to a rapid increase in GHG concentrations in the atmosphere and that this buildup may well alter the earth's climate in serious and potentially harmful ways. This consensus that anthropogenic climate change is real and requires a meaningful governmental response did not exist just a few short years ago and reflects a striking evolution in thinking among many traditional climate skeptics.

Second, President Bush has explicitly reaffirmed U.S. support for the 1992 Framework Convention on Climate Change, whose long-term goal is to stabilize atmospheric concentrations of GHGs at levels "that would prevent dangerous anthropogenic interference with the climate system."

And third, there is a widespread recognition that breakthrough technologies for producing and consuming energy are necessary for the dramatic changes in the carbon profile of our economy required to reverse the current GHG buildup and achieve the convention's stabilization goal.

A serious and credible climate change policy based on these three areas of agreement would necessarily be long-term in focus, with goals and milestones measured in decades and perhaps centuries as opposed to years. Unfortunately, the strong passions stirred by the debate over Kyoto and its domestic counterparts have prevented a thoughtful discussion of long-term climate strategies or a recognition of

Robert M. Sussman is a Partner and Chair of the Washington, D.C., environmental practice at Latham & Watkins. He was Deputy Administrator of the U.S. Environmental Protection Agency from 1993 to 1994.



ANOTHER VIEW

Creating, Not Waiting, For A Climate-Friendly Future

As the United States continues to wrestle with how best to respond to climate change, we'd be wise to take management expert Peter Drucker's words to heart: "The best way to predict the future is to create it." With the world's top scientists saying the earth's climate is undergoing potentially catastrophic changes—and that human activities are largely to blame—it is time to move past predictions of what a climate-friendly future might look like. It is time to start creating that future now.

At the Pew Center on Global Climate Change, we call it the "10/50 Solution." The idea is that we can successfully respond to the threat of climate change only if we think decades ahead. We need at least a 50-year goal for reducing U.S. emissions of greenhouse gases to levels that do not interfere with the climate. At the same time, we need to plan how we will achieve that goal on a decade-by-decade basis, with every 10-year period bringing us closer to our desired future. Even 50 years is probably not enough time to turn things around completely, but a 50-year vision will give us an idea of how to start dealing with this issue in a responsible and manageable way.

Why focus on the long-term? Because achieving the necessary reductions in our greenhouse gas emissions will ultimately require a massive shift away from fossil fuels to climate-friendly sources of energy. It will require innovation at a level we have never seen before—fundamental changes in how we produce things, how we power our homes and buildings, and how we travel. Last but not least, it will require a pronounced shift in U.S. policy, which now amounts to little more than business as usual. Clearly, we will be at this for a while.

But this does not mean we can just stand around and wait for change to happen. In October 2001, the Pew Center held a workshop with leading scientists, economists, and other

analysts to discuss the optimal timing of efforts to address climate change. The overwhelming consensus: Action needs to start now. If we want to mass produce automobiles powered by hydrogen, for example, we need to develop new ways to produce, store, and distribute this fuel—and that is going to take time.

"Learning by doing" is the only answer. Over the past several years, leading corporations around the world have established voluntary targets for reducing their own greenhouse gas emissions. They're doing this not strictly for PR purposes but because it gives them a competitive advantage. By acting now,

they're learning what it's going to take to achieve long-term emissions cuts, while at the same time identifying low-cost opportunities to reduce their emissions now. But those companies truly committed to addressing climate change recognize that the goal can be met only if everyone moves fast enough and far enough in the right direction. That is why the major corporations we work with at the Pew Center have called for mandatory, market-based strategies to reduce emissions as cost effectively as possible.

Starting right now, government, business, and other stakeholders need to work together to identify short-, medium- and long-term strategies that will help the U.S. transition to a new, climate-friendly economy.

In the short-term category are strategies that reduce greenhouse gas emissions without radical changes. We can easily harvest low-hanging fruit in the effort to reduce emissions: everything from more fuel-efficient cars and trucks, including hybrid gas-electric vehicles, to energy-efficient appliances and computers, efficiency improvements in industry, and even better management of animal wastes. One short-term step that will help to get the ball rolling: establishing a mandatory system to more accurately measure, report, and track green-

house gas emissions. Having this kind of information in hand will be essential as we move toward the next step: an economy-wide cap-and-trade system that puts market forces to work to achieve steady emissions reductions over time.

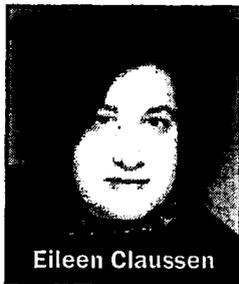
Government can also accelerate the pace of innovation and technological change in a number of sectors by providing tax and other incentives for the development and adoption of energy-efficient technologies, clean fuels, and carbon storage in forests and agricultural soils, using innovative management techniques.

Looking further ahead, the challenge is to begin to encourage the large-scale fuel switching that is needed to achieve significant, long-term reductions in U.S. greenhouse gas emissions. In the electricity sector, we're still using power plants that came on-line in the 1890s, and a significant fraction of today's plants were built more than four decades ago. The long-term challenge, therefore, is to continue the shift toward building natural gas-fired power plants as old plants are retired, while at the same time doing more to develop and promote alternative sources of energy such as solar and wind power, biomass, and fuel cells. Similarly, in transportation, the medium- to long-term challenge is to look beyond incremental efficiency improvements to fuel cells and other technologies that will radically reduce car and truck emissions.

In all of these areas, government can and must play a vital role. Rather than prescribing exactly how to reach our goals, however, policymakers can do their part by making those goals clear and enforceable, then leveraging the power of the market and technological innovation to ensure they are met.

Climate change may be a long-term problem, but we can't wait any longer to start solving it. Now is the time to act—while we still have a chance

Eileen Claussen is President of the Pew Center on Global Climate Change in Arlington, Virginia.



Eileen Claussen

the inherent drawbacks of short-term approaches. The reality is that, despite its symbolic importance, Kyoto will do little to reduce the risk of climate change. Even in the developed countries that have signed the Protocol, a net decline in GHG emissions is unlikely to be achieved; at best, the rate of emissions growth may be slowed. When emissions from developing countries are taken into account, the world can expect emissions to rise dramatically over the coming decades, as continued industrialization and population increases drive energy demand to ever higher levels.

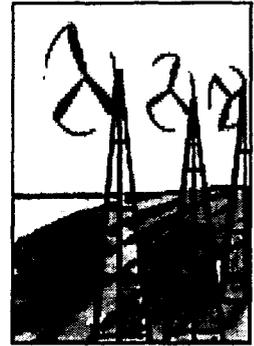
A climate strategy predicated on modest emission cuts resulting from marginal changes in energy production and consumption will not reverse these alarming trends. Instead, dramatic reductions in the ratio of GHG emissions to economic output are needed so that economic growth can continue while aggregate emissions decline substantially. According to the most authoritative sources, carbon intensity (emissions per unit of economic output) would need to decline by 95 percent from today's level to achieve atmospheric stabilization. Nothing short of a radical restructuring of the world's energy and transportation systems can achieve this reduction. Such a restructuring cannot occur over the limited time horizon of the Kyoto Protocol or comparable domestic programs. Nor will it be brought about by incremental emission management steps divorced from long-term policies for transforming the carbon profile of our economy. To be effective, a comprehensive climate strategy must be based on long-term emission reduction goals *and* a sustained, multi-decade commitment to develop and globally deploy revolutionary new technologies that are far less carbon intensive than current technologies.

Right now, these building blocks for an effective climate change strategy are not in place. In a speech to the American Petroleum Institute last fall, James Connaughton, chairman of the White House Council on Environmental Quality, said, "There is an overwhelming consensus that, at root, the practical and necessary solution to addressing greenhouse gas emissions is technological innovation and, more importantly, its deployment." Although this rhetoric is encouraging, we do not now have long-term programs to provide the resources and incentives required for successful technology change. The funding levels proposed by the administration for climate-friendly technologies are tiny compared to total national outlays for research and devel-

opment; a systematic effort has not been made to identify and address the major scientific and economic barriers limiting widespread application of new technologies; targets and timetables for deployment of new technologies in critical economic sectors have not been set; and policies to encourage business investment in R&D or technology demonstration projects have been haphazard and uneven. Most importantly, although the administration has accepted the Framework Convention's goal of stabilizing atmospheric GHG concentrations, our nation lacks a process or timeline for achieving this goal. As a result, there is no overall emission reduction framework that would define the pace, direction, and scale of the technological innovation called for by the CEQ chairman.

Relying on our success in improving air and water quality, advocates of free-market approaches to environmental problems may prefer to rely on emission reduction goals to drive technology change. Traditional regulatory strategies have worked well to stimulate incremental improvements in emission control technologies in the automotive and power generation sectors. However, it is unlikely that regulatory mandates will, in themselves, create the radically different energy and manufacturing technologies required to change the carbon profile of our economy. For example, the recent enthusiasm of many car companies for hydrogen fuel-cell vehicles provides encouraging evidence that the industry is open to alternative technologies that reduce dependence on fossil fuels. But these tentative first steps will not alone transform the automotive sector; ultimately, the hydrogen must be manufactured using non-fossil fuels and delivered safely and economically to drivers, which means the creation of a new energy supply system. Similar challenges confront power generators and our manufacturing industries. In view of our huge sunk investment in existing energy, manufacturing, and transportation infrastructure and the massive capital and R&D investments required to rebuild it, the private sector is unlikely on its own to commit the resources and take the risks required to bring new technologies to the marketplace. While government intervention may be unappetizing to political leaders in both parties, technology solutions to climate change will only succeed with strong government programs to manage and guide technology change, share financial risks, and reward private-sector innovation and investment.

The key challenge for the president and the



Kyoto will do little to reduce the risk of climate change. Even in the developed countries that have signed the Protocol, a net decline in greenhouse gas emissions is unlikely to be achieved; at best, the rate of emissions growth may be slowed.

ANOTHER VIEW

A 21st Century Vision For Energy

When the Bush administration took office two years ago, we knew we had to address issues of great importance to the future of our country — and of the world. They were: energy security, energy efficiency, reducing polluting emissions, and reducing greenhouse gas emissions.

The president addressed energy security and efficiency in 2001 with his comprehensive National Energy Plan to ensure abundant, affordable, and environmentally sound energy for the future.

Shortly after that, he announced his plan for cutting greenhouse gas intensity by 18 percent over the next 10 years, and for eventually stopping — and then reversing — greenhouse gas growth.

And in 2002, he announced his Clear Skies Initiative to cut power plant emissions of the three worst air pollutants — nitrogen oxides, sulfur dioxide, and mercury — by 70 percent by the year 2018.

We have been moving ahead on a broad front to implement these policies. Our vision, which embraces the American commitment to a cleaner environment, provides a realistic path toward the use of energy in the future. Americans currently depend on foreign sources for 55 percent of our oil — a dependence that is projected to rise. In addition, 64 percent of the world's oil reserves are in the Persian Gulf, so our dependence on oil from this region of the world is expected to grow. Since two-thirds of the oil we consume is used for transportation, we must focus on alternative means of fueling transportation from domestic resources if we ever expect to reverse this trend.

For centuries we have lived and prospered in a carbon-based economy. Energy sources like coal and oil once overcame an economy based on horsepower. So, I suspect, our carbon-based economy may itself pass from the scene to be replaced, perhaps, by hydrogen.

The National Energy Plan directs us to explore the possibility of such an economy and such a future. Hydrogen offers the possibility of completely clean energy — its only byproduct is water. And, since hydrogen is the most common element in the universe, it offers an essentially limitless source of energy.

In his State of the Union speech, President Bush announced his Freedom Fuel Initiative, a new research and development effort focused on hydrogen that will help reverse America's growing dependence on foreign oil and expand the availability of clean, abundant energy.

The president said, "In this century, the greatest environmental progress will come about not through endless lawsuits or command-and-control regulations, but through technology and innovation. Tonight I'm proposing \$1.2 billion in research funding so that America can lead the world in developing clean, hydrogen-powered automobiles. A single chemical reaction between hydrogen and oxygen generates energy, which can be used to power a car — producing only water, not exhaust fumes. With a new national commitment, our scientists and engineers will overcome obstacles to taking these cars from laboratory to showroom, so that the first car driven by a child born today could be powered by hydrogen, and pollution-free."

Freedom Fuel is an initiative that will accelerate the research and development required to solve the technical challenges in hydrogen production, delivery, storage, and distribution, and to establish the necessary safety-related codes and standards. Freedom Fuel will also accelerate the demonstration of fuel-cell vehicles and hydrogen infrastructure so that technologies can be validated under real world conditions. When the vision of Freedom Fuel is achieved, hydrogen will power the fuel cells that provide energy for our cars,

trucks, homes, schools, and businesses.

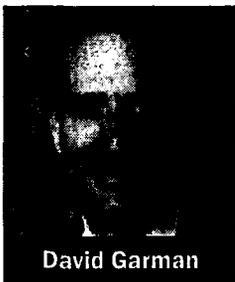
Last year the Bush administration announced FreedomCAR, a public-private partnership with U.S. automakers to accelerate the development of practical, affordable hydrogen fuel-cell vehicles. Their development and commercial success would remove personal transportation as an environmental issue and substantially reduce our dependence on foreign oil. FreedomCAR is working to lower the cost and advance the technology of such vehicles to allow them to be commercially available and affordable.

The hydrogen needed to fuel these vehicles is domestically available in abundant quantities as a component of natural gas, coal, biomass, and even water through electrolysis using renewable or nuclear power. The challenge is to economically produce, deliver, store, and distribute hydrogen for use as a consumer fuel, and to engage the broader oil, energy, and power companies in this effort. Pursuing FreedomCAR and the new Freedom Fuel initiatives in parallel will enable a commercialization decision by automotive manufacturers and the energy industry regarding fuel-cell vehicles and hydrogen infrastructure to be made in 2015.

Our energy plan provides the national guidance that will allow: More individual choice ... Reliable and affordable electricity to power our homes and businesses ... Cleaner sources of energy ... Dramatic gains in energy efficiency ... Less dependence on foreign energy sources. That is the vision that President Bush has presented to the American people. It is a vision that relies on a partnership between our federal research and development efforts and the creativity and ingenuity of the private sector, where innovation flourishes and risk takers push the envelope.

And it is a vision that I think we can all embrace.

David Garman is Assistant Secretary for Energy Efficiency and Renewable Energy in the U.S. Department of Energy.



David Garman

Congress is to design a set of policy measures that commit the nation to realistic long-term emission reduction goals and then set in motion the combination of public-private R&D programs, financial incentives, and market penetration targets required to develop the new technologies needed for sustained progress toward these goals. The Senate energy bill passed in the last Congress took important steps in that direction by calling on the Executive Branch to develop a national climate change strategy which focussed on how and when to stabilize GHG levels in the atmosphere and addressed the essential role of technology in reaching that target. Despite bipartisan support for these provisions in the Senate, they were not endorsed by the president or the House of Representatives and face an uncertain fate in the new Republican-controlled Congress. Nonetheless, even as attention shifts to the ailing economy and the threat of war and global terrorism, the opportunity for a centrist approach to climate change should not be overlooked. Translating emerging areas of agreement into a new legislative framework, based on the long-term goal of stabilizing GHG emissions through technology change, will require leadership, funding, and a shared, public-private commitment to innovation on a broad scale. But if we do not rise to this challenge, policymakers will be trapped in an increasingly bitter and partisan debate over near-term emission limits which, by their very nature, will fail to moderate the climate threat.

The Kyoto Protocol is the leading (and perhaps the only) example of near-term emission control strategies for addressing climate change and provides an instructive test of the effectiveness of these strategies. The Protocol sets a mandatory target — reducing greenhouse gas emissions by 5.2 percent below 1990 levels by 2012 — which individual signatories are expected to translate into domestic programs that spur emission reductions by the private sector. The premise of Kyoto is that binding limits on emissions will motivate business to invest in lower-emitting products and processes and in energy sources with lower carbon content. While the resulting emission reductions will be small at first, they are expected to increase over time as more stringent emission limits create incentives for more dramatic emission improvements.

Notwithstanding U.S. opposition, most of the world's developed countries are poised to ratify the Protocol and it should enter into force later this year. Despite this remarkable diplomatic feat, however, successful implementation of the treaty is very much in doubt. With less than a decade remaining before the end of the first Kyoto commitment period, attainment of its emission reduction targets is increasingly unlikely. The pace of progress in the European Union — which strongly supported the Protocol and is the world's largest GHG emitter outside the United States — is disappointing. The European Parliament recently reported that most EU members were unlikely to reach their emission reduction goals. Even the reductions that occur will be largely illusory because they will depend heavily on one-time "hot air" credits created by economic collapse in Central Europe and the former Soviet Union in the early 1990s. According to the International Energy Agency, if such credits are excluded, emissions in developed countries signing the Protocol are likely to exceed Kyoto targets by 2.8 billion tons, or 29 percent, by 2010.

Outside the developed world, the outlook is even grimmer. According to the IEA, total global emissions are projected to increase to 38 billion tons, or 70 percent above today's levels, by 2030. Over two-thirds of these additional emissions will occur in developing nations. China alone will contribute a quarter of the increase in emissions. In short, the world's emerging economies are on a path toward rapidly rising emissions as a result of explosive population growth and industrialization.

How will the world's governments respond to the realization that worldwide GHG emissions remain on an upward trajectory, even in the industrialized countries where the Kyoto Protocol was expected to bring about a decline? Since there are no enforcement mechanisms in Kyoto, countries in breach will not be penalized. Instead, it is likely that the targets and timetables will be renegotiated to give developed countries more time. A renegotiated Protocol would have the benefit of preserving international cooperation in addressing a major global environmental threat. But would relaxing a treaty that already sets very modest goals really put the world on a path toward mitigating the risk of climate change? Unfortunately, the answer is no. At most, a concerted effort by the developed countries under a revised Protocol might slow and negligibly reverse the growth of GHG



Emissions per unit of economic output need to decline by 95 percent from today's level to achieve atmospheric stabilization of GHGs. Nothing short of a radical restructuring of the world's energy and transportation systems can achieve this reduction.

emissions in the industrialized world over the next 20-30 years. However, it would not address the explosive emissions growth occurring in developing countries, which are unlikely to agree to any regulatory regime which caps emissions and potentially limits economic activity.

Nor would it reduce the buildup of greenhouse gases in the atmosphere, which can be expected to increase for decades to come. Future emissions scenarios developed in 1992 by the UN's Intergovernmental Panel on Climate Change confirm this sobering reality. Assuming continued reliance on 1990 energy technologies, atmospheric concentrations of CO₂ would reach a staggering 1,100 parts per million by 2080. (The IPCC and other analyses focus mainly on CO₂, although other gases are also addressed in Kyoto and most domestic emission management programs.) Even with substantial improvements in energy efficiency and increased reliance on non-fossil fuels, the IPCC has projected that, because of population and economic growth, atmospheric concentrations of CO₂ would rise to 750 ppm by the end of the century, twice 1990 levels and nearly triple pre-industrial levels. Under extraordinarily optimistic assumptions about the prevalence of carbon-free energy technologies, resulting in declining worldwide emissions by 2100, the IPCC has predicted that CO₂ concentrations in the atmosphere would still rise to over 500 ppm, more than 2.5 times pre-industrial levels, over the same period. Remarkably, even if global emissions were to return to their 1990 level of 7.5 billion tons and remain at that level indefinitely, CO₂ concentrations in the atmosphere would continue to increase for centuries.

Despite disagreements over the Kyoto Protocol, all developed countries, including the United States, support the 1992 Framework Convention on Climate Change, which establishes the long-term goal of "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system." There is no consensus among scientists about what this target concentration should be. But a recent report of the public-private Global Energy Technology Strategy Program underscores the difficulty of achieving even the high end of the plausible range of acceptable atmospheric concentrations. According to this report, stabilization at 450 ppm would require a rapid decline in worldwide emissions starting in mid-century, leveling off at approximately 2.5 billion tons by 2100. This

would mean a reduction of over 90 percent from projected 2030 emissions. The report reaches the conclusion that "the only way to stabilize concentrations of greenhouse gases at any level that is currently under serious discussion would be to reduce the carbon emissions per dollar of economic output to less than one-twelfth of their current value." If the goal is to stabilize atmospheric concentrations at the 1990 level of 375 ppm, the reduction in emissions as a function of economic output would be even greater yet the risk of climate change would only be moderated, not eliminated.

The breathtaking scale of the emission reductions necessary to reverse the buildup of GHGs in the atmosphere puts the current debate about climate policy in a new light. President Bush has been faulted by U.S. allies and domestic critics for rejecting the Kyoto targets and instead seeking to reduce the "GHG intensity" of the U.S. economy by 18 percent by 2012—a goal that means that U.S. GHG emissions will in fact continue to increase. But while U.S. climate policy is less aggressive than that of other developed countries, these differences pale beside the reality that both the United States and its major allies are on a path that may only lower the rate of emissions growth in the developed world but will not prevent continued GHG buildup in the atmosphere or stabilize GHG concentrations at a level that will prevent harmful climate change.

It is understandable that our leaders would seek to address climate change with traditional regulatory strategies that rely on near-term targets to change private sector behavior. In our democratic system, where elected representatives must answer to the voters at frequent intervals, politicians prefer programs which deliver immediate, easily documented benefits; they are less comfortable with open-ended programs with uncertain future payoffs. This mindset has shaped our environmental protection system, where our metrics for improvement have focused on year-by-year reductions in emissions and discharges, tied to air- or water-quality goals to be achieved in five- or ten-year increments. Politicians, regulators, and business leaders are accustomed to managing against such short-term goals and committing the funding, expertise, and investment dollars necessary to meet government targets. However, this approach will only succeed where environmental problems

can be solved without changing the basic technologies we use to produce and consume energy, manufacture products and raw materials, and deliver services.

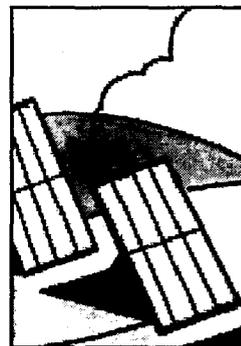
The catalytic converter in automobiles, the removal of lead and sulfur from gasoline, and the construction of scrubbers at coal-fired power plants all represent important innovations that produced rapid, quantifiable reductions in air emissions and observable improvements in air quality. These benefits, however, were achieved without altering the dominant technologies in the affected industries. For example, tailpipe emissions of conventional pollutants from cars and trucks have been lowered dramatically in the last three decades without reducing reliance on the internal combustion engine and the petroleum-based fuels that power it. Considerable investment and ingenuity were required to achieve this progress but our core energy and transportation technologies remained intact.

Climate change, however, is profoundly different from other environmental challenges. Incremental improvements in existing technology will necessarily fall short in meeting the challenge. While improved energy efficiency in commercial buildings, reforestation projects, methane recovery, or lower-emitting manufacturing processes may avoid or reduce emissions by measurable amounts, these gains will be offset by emissions increases resulting from rising energy consumption driven by population growth and higher per capita production of goods and services. To actually lower emissions significantly in an expanding global economy, emissions per unit of economic output must decline at a much more rapid pace than countervailing increases in energy consumption and economic activity. Only fundamental changes in technology will produce radically lower GHG emissions per unit of economic output without stifling economic growth. These changes in technology, however, will necessarily take decades if not centuries to implement and therefore are beyond the reach of near-term regulatory milestones. Debating finite short-term goals — either the president's target of 18 percent carbon-intensity improvement by 2012 or the Kyoto Protocol's target of reducing emissions by 5.2 percent from 1990 levels by the same date — runs the risk of diverting our attention from the real challenge: how do we bring about economy-transforming changes in the basic technologies we use to power our vehicles, run our factories, and generate electricity to light our homes and operate our computers?

In concept, the path which technological change must follow to dramatically reduce GHG emissions is well-understood. An excellent summary of the options is provided in a recent article in *Science* entitled "Advanced Technology Paths to Global Climate Stability: Energy for a Greenhouse Planet." Energy-production technologies are required that are capable of meeting growing worldwide energy demand without carbon emissions and have the potential for large-scale, low-cost commercialization. Candidates include terrestrial solar and wind energy, solar power satellites, biomass, nuclear fission, nuclear fusion, fission-fusion hybrids, and fossil fuels from which carbon has been sequestered. An important role can also be played by non-primary power technologies, including dramatic reductions in end-use energy demand, hydrogen reduction from water and subsequent storage and transport, superconducting global electric grids, and geoengineering. However, the *Science* article cautions that all these approaches have "severe deficiencies" and require "intensive research and development" before they can be deployed broadly to stabilize GHG concentrations in the atmosphere.

Major industries are showing surprising signs of interest in carbon-friendly technologies. Delighting both car enthusiasts and futurists, General Motors unveiled a prototype "Autonomy" vehicle powered by hydrogen fuel-cells last January at the North American Auto Show. The car has a thin chassis, resembling a giant skateboard, on which different bodies can be mounted. The platform has a revolutionary drive-by-wire control system which replaces traditional mechanical systems for steering, braking, and acceleration and eliminates the need for motor oil, brake fluid, and transmission fluid. Small electric motors are located in each of the car's wheels. Power for these motors is produced by an engine consisting of hydrogen fuel cells, which strip electrons from hydrogen atoms and use them to provide an electric current. The only byproducts from this process are heat and water vapor; emissions of CO₂ are non-existent.

Although small numbers of hydrogen fuel cell vehicles will soon appear in automobile showrooms, no one should expect them to replace the millions of petroleum-powered cars and trucks now on the road any time soon. Several formidable obstacles lie in the way of turning this seductive concept into a commercial reality. Hydrogen will need to be produced in much larger quantities than it is today. The main source of hydrogen at present



To be effective, a comprehensive climate strategy must be based on long-term emission reduction goals and a sustained, multi-decade commitment to develop and globally deploy revolutionary new technologies that are far less carbon intensive than current ones.

is steam reforming of fossil fuels, a process that is energy intensive and itself results in large CO₂ emissions. The potential exists to produce hydrogen from biomass and other renewable fuels, or to use electricity from wind or solar power to extract hydrogen from water by electrolysis, but efficient production methods do not yet exist. Moreover, to support a nationwide fleet of fuel-cell vehicles, the nation's fueling infrastructure will need to be rebuilt so that drivers can purchase hydrogen at filling stations as conveniently and cheaply as they now buy gasoline. This will require a multi-billion dollar investment. Hydrogen is a gas and therefore will need to be compacted so it can be stored in sufficient quantities on a vehicle without excessive space or weight; the technologies needed for efficient on-board storage must be developed. When mixed with oxygen, hydrogen is also explosive and therefore will need to be stored safely both on-board vehicles and at filling stations and during distribution. Most importantly, the costs of fuel-cell systems, now estimated to be up to a hundred times greater than internal combustion engines, need to be lowered dramatically.

Will the private sector be successful in overcoming these barriers? While touting Autonomy's innovative design, GM officials were careful not to overpromise. Larry Burns, GM Vice President for Research Development, said: "We're in a marathon and we're only five miles into the race." Jack Smith, GM's chairman, was more explicit: "We cannot make that happen alone." Not only does the auto industry face technological challenges outside its traditional area of expertise; marketplace realities themselves will hinder the industry's ability to deliver on the promise of fuel cells. The rapid development of the automobile in the early 20th century was due to its clear superiority in meeting consumer needs over less efficient forms of transportation. Market demand surged once the internal combustion engine was demonstrated to perform reliably and safely. With an expanding market and little competition from other technologies, investors could commit large amounts of capital to the construction of assembly plants and fueling infrastructure confident that rapid revenue growth would provide a healthy return on investment. By contrast, fuel-cell vehicles will need to compete with conventional automotive technology, which is now highly developed in providing consumers with comfort, performance, and sociability at an acceptable price. Unless fuel-cell vehicles can com-

pete on these terms, they will not achieve large market penetration, notwithstanding their enormous environmental superiority. And yet fuel-cell technology will only become competitive in the marketplace if an enormous investment, at all levels of the economy, is made to support advancement of the technology and the creation of mass production capability and a national fuel infrastructure. Will auto manufacturers strapped for cash to improve existing product lines and fighting for share in a cutthroat global market be prepared to take this risk by themselves? It's not likely.

The same constraints are at work in other industry sectors where breakthrough technologies have the potential for large reductions in carbon intensity. For example, the power generation sector faces the challenge of producing electricity from non-fossil sources or sequestering emissions from combustion before they enter the atmosphere. Renewable energy technologies (wind, solar, hydro, biomass) are inherently non-emitting but currently have serious limitations. These include not just low power densities, requiring large tracts of land and equipment to meet power demand, but difficulty providing baseload power given intermittency of operations and poor compatibility with existing hub-and-spoke distribution networks. Localized distributed generation systems also offer potential benefits but will require scale-up and commercial availability of low-cost fuel cells powered by hydrogen from non-fossil sources. Nuclear power is a carbon-free technology but the limited worldwide availability of uranium fuel as well as public opposition may preclude its long-term viability in the absence of new reactor technologies.

A potential path to a non-emitting power sector is carbon sequestration, in which carbon that would otherwise be emitted is captured and diverted to storage chambers or non-emitting reuse. This approach could allow abundant fossil fuels like coal to remain in widespread use despite their high carbon content. Depleted oil and gas wells, aquifers, coal seams, and even the ocean offer abundant sequestration opportunities. However, safety, environmental, and economic concerns must be overcome before CO₂ capture and storage technologies are ready for widespread use. We also need to assure that underground repositories are leak-free and will prevent the escape of CO₂ in large quantities to the atmosphere. Moreover, geographic considerations may mean that cost-effective access to CO₂ reservoirs exists in some regions but not oth-

ers and that CO₂ pipelines are needed to connect many power plants or factories to these underground reservoirs. Although energy companies are experimenting with pilot sequestration projects, large-scale investment will be needed before this technology is a practical retrofit option for the nation's many coal-fired power plants. Regulated utilities beholden to tight-fisted public service commissions or cash-constrained merchant power producers are unlikely to support this investment given the short-term impacts on energy prices, the large cost burdens imposed on some power plants, and the risks and uncertain effectiveness of some sequestration technologies.

These examples underscore the reality that market forces — despite their proven success in driving innovation and creating investment capital — will not be sufficient to bring about the dramatic changes in energy consumption and production required to stabilize GHG concentrations in the atmosphere. The obvious alternative is long-term government leadership and support in developing climate-friendly technologies. Yet this expanded government role will be viewed with suspicion by free-enterprise advocates. They will argue that competition between individual entrepreneurs is a well-proven engine of technology change, and governments that restrict this competition will create barriers to economic growth. They will point to centrally managed economies — in Europe and Japan, for example — that stumbled badly in the 1990s because they lacked the culture of innovation and risk-taking valued in the United States. The marketplace, they will emphasize, should pick winners and losers based on product quality, ingenuity, and cost; bureaucrats sheltered from the real world and lacking accountability to consumers have no business making these choices.

There are certainly examples of government programs that validate these concerns. Ill-conceived funding of shale-oil production in the 1970s resulted in wasteful investments in a technology that became uncompetitive as soon as global energy markets recovered a few years later. The Department of Energy poured hundreds of millions of dollars into breeder reactor research even though this technology never became viable in the power industry. The government likewise tried to rescue U.S. television manufacturers by supporting de-

velopment of high definition television technology that is only now reaching the marketplace. Yet there are also government technology initiatives that represent enormous success stories for the U.S. economy. The Manhattan Project mobilized the nation's scientific brainpower and industrial infrastructure to create a nuclear weapons arsenal with breathtaking speed; one outcome of this effort was a generation of civilian nuclear power plants that would not have been built otherwise. The same is true of World War II programs to accelerate breakthroughs in aerospace technology and create a domestic synthetic rubber industry; these strategic investments delivered large economic payoffs after the war. More recently, the space program launched by President Kennedy not only stimulated a remarkable scientific collaboration in exploring the solar system but produced numerous spinoff technologies with important applications in software, computing, and materials science. Similarly, biomedical research funded by the National Institutes of Health has led to a new generation of bioengineered pharmaceuticals and diagnostic devices brought to market by the private sector. Indeed, a recent *Economist* editorial has argued that the remarkable burst of U.S. technological innovation that occurred in the 1990s was in large part attributable to the 1980 Bayh-Dole act allowing universities performing federally funded research to commercially exploit their discoveries. Even railroads and automobiles, which resulted from private sector innovation, would not have expanded across the country without subsidies from the federal government, which granted rights of way for trains in the 19th century and funded construction of the nation's interstate highway system in the 20th century. As these many examples show, partnerships between government and the private sector have long been instrumental in the United States in accelerating technology innovation and reducing its risks and costs.

Although we celebrate the solitary innovator tinkering in a basement or garage, the reality is that the government is already a pervasive presence in the nation's research and development laboratories. Government funding for R&D totaled \$104 billion in 2002 and government officials have considerable control over how this money is spent, with organizations like the National Institute for Science and Technology, National Science Foundation, the National Institutes of Health, and the DOE National Laboratories determining funding priorities and deciding which projects



Traditional regulatory strategies have stimulated incremental improvements in emission control technologies in the automotive and utility sectors. However, it is unlikely that regulatory mandates will, in themselves, create the radically different technologies required to change the carbon profile of our economy.

are worthy and which are not. Even the environment receives a sizable amount of government funding; agency spending on environment-related R&D totaled \$7.5 billion in 2002. By contrast, even as the challenge of climate change has grown, funding for energy research programs has declined in the United States and many other developed countries — by one estimate, falling by 23 percent between 1985 and 1995.

While there is ample precedent for R&D initiatives spearheaded by government agencies, a program to develop and deploy breakthrough climate-friendly technologies would test the skills of policymakers in new and challenging ways. The time-horizon for successful R&D projects would be measured not in months or years but in decades. Politicians impatient for immediate results would need to lower expectations and resist pressure to transfer resources to areas with quicker pay-offs. Priorities would need to be set across several industry sectors and often among competing technologies, each of which may have strong advocates in industry or academia. Members of Congress would inevitably take sides in these disputes in an effort to steer program funding to their home districts. It would also be necessary to weigh the tradeoffs between technologies like hybrid gasoline-electric or diesel-electric vehicles with near-term emission reduction benefits but continued reliance on fossil fuels, and technologies like fuel cells that promise larger but less certain emission reductions and are many years away from commercialization. And despite successful demonstration projects, businesses may resist investing in new technologies because of the high costs of production or doubts about consumer acceptance and may demand tax credits or subsidies to reduce these risks.

Designing a long-term technology program that overcomes these obstacles will not be easy. So far, Congress and the Executive Branch have not risen to the challenge. Existing government efforts to encourage climate-friendly technologies suffer from inadequate funding, shifting priorities, and the absence of a long-term strategic vision. For example, the Clinton administration and the domestic carmakers launched the Partnership for a New Generation of Vehicles nearly 10 years ago to encourage fuel-efficient engine and vehicle designs but the Bush administration recently abandoned the effort in

favor of a new FreedomCAR Program devoted to fuel-cell technologies. This change in priorities may have been correct but it created the perception of a stop-start approach to basic research, with politics driving the deployment of R&D dollars rather than a long-term technology roadmap for the automotive industry. Adding to this perception was the Bush administration's failure to set milestones for when and in what quantities fuel-cell vehicles would be on the nation's roads. Even with the new funding proposed in the president's State of the Union address, total outlays (now \$273 million per year) have raised eyebrows among advocates of fuel-cell technology. Looking beyond fuel cells, the president proposed funding of only \$1.3 billion for the National Climate Change Technology Initiative he announced last February and proposed to allocate merely \$40 million of this amount for development and deployment of advanced energy and sequestration technologies. This is a small fraction of government outlays (subsidies, tax incentives, and R&D investment) to support conventional energy sources and a minuscule investment in comparison to funding for other priorities like national defense.

Energy legislation passed by the Senate in the last Congress would have taken important steps to lay the groundwork for long-term programs to develop and deploy breakthrough carbon-friendly technologies. Under Title X of the Senate energy bill, the president would have been required to develop and submit to Congress a national climate change strategy with the long-term goal of stabilizing GHG concentrations in the atmosphere through significant mitigation strategies and implementing programs. A major focus of this strategy would have been funding and other measures to foster introduction of advanced technologies. Unfortunately, the president did not support the climate titles of the Senate energy bill and the House did not include counterpart provisions in its own energy bill. While the new Republican-controlled Congress is likely to have less interest in climate issues than its predecessor, the Senate bill did embody a bipartisan consensus that has been elusive on other climate proposals and therefore represents a promising starting point for renewed attempts to forge a centrist approach to climate change.

Like the Senate energy bill, a new legislative framework for climate change should be focussed on the long-term goal of the Framework Convention — stabilizing GHG concen-

trations in the atmosphere at acceptable levels — and the role of technological innovation in achieving this goal. (Senators John McCain (R-Arizona) and Joe Lieberman (D-Connecticut) have introduced a bill mandating cuts in GHGs in this session, but it has a short-term focus.) Here are some key concepts that could form the basis for this legislative framework:

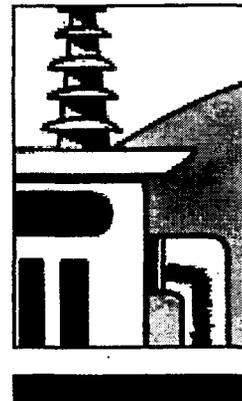
As the Senate energy bill recognizes, a long-term climate change strategy is essential to establish national goals and milestones. A strategy spanning multiple decades will shift attention away from near-term emission limits and focus debate on the overall pace of progress and accompanying commitment of national resources required to mitigate the climate change threat on a long-term basis. Instead of specifying step-by-step emission reductions, this strategy should set targets for the GHG concentrations in the atmosphere that we want to achieve by various dates over the remainder of the century and beyond and the reductions in carbon intensity that will be needed to meet these targets. This approach will assure that all our climate-related programs and initiatives are geared to and measured against the overall objective of stabilizing GHG concentrations at a level that acceptably minimizes climate change impacts on our economy and ecosystems. Translating target atmospheric concentrations into desired reductions in carbon intensity will then make it possible to set clear goals and timetables for lowering emissions per unit of economic output. These goals and timetables for lowering carbon intensity will in turn make it possible to develop performance metrics for new technologies.

How quickly we should reduce carbon intensity and attain stabilization is a complex and controversial issue on which consensus will be hard to reach. Some will argue that, under the Framework Convention, determination of an atmospheric concentration target should occur through multilateral negotiations, not unilateral action by the United States, since this target is global in nature and can only be met if all nations commit to parallel emission reduction regimes. However, the prospects for international agreement on stabilization dates and targets in the near future are uncertain at best. While the United States could defer developing a long-term climate strategy until such an agreement is reached, this approach would delay indefinitely any meaningful effort to set targets for reducing carbon intensity and performance

metrics for new technologies. A better strategy would be for the United States (either alone or with other developed nations) to adopt a stabilization goal and timetable on the premise that other nations will ultimately commit to commensurate stabilization and carbon-intensity reduction targets. While this approach would entail considerable uncertainty and some risk to the U.S. economy, it would also demonstrate U.S. leadership and create a framework for technology change that would eventually enable other countries (including those in the developing world) to make comparable improvements in the carbon profile of their economies that in turn provide a basis for worldwide agreement on stabilization levels and dates.

Because of its enormous political overtones, it is unlikely that Congress or even the Executive Branch will be comfortable adopting stabilization levels and dates. An alternative would be for Congress and the president to appoint a commission of respected climate scientists, technologists, and economists who would recommend target concentrations of greenhouse gases in the atmosphere, dates for achieving them, and accompanying targets and timelines for reducing the carbon intensity of our economy. Congress would provide several criteria to guide the development of these recommendations — including trends in worldwide emissions and economic growth, the projected U.S. share of global emissions at various future dates, the ability to maintain our industrial competitiveness and standard of living, the expected pace of technology advances in different sectors, the anticipated timing and severity of adverse climate impacts, and other national energy, transportation, and environmental policies. The commission's recommendations would then be reviewed by Congress and, if approved, would be incorporated into the national climate change strategy. Since new scientific, economic, and technological information will emerge continuously, a regular reexamination of the stabilization levels, dates, and carbon intensity targets recommended by the commission should occur, perhaps at 10-year intervals.

Once a national strategy has been established with timetables for achieving carbon-intensity reduction goals, the next step would be to identify critical technology paths for reaching these goals. For this purpose, the Executive Branch (with support from the National Academy of Sciences and input from industry, environmentalists, and the scientific



Translating emerging areas of agreement into a new legislative framework, based on the long-term goal of stabilizing GHG emissions through technology change, will require leadership, funding, and a shared, public-private commitment to innovation on a broad scale.

community) could develop “technology roadmaps” for key sectors (e.g., energy production, transportation, power generation and distribution, agriculture, etc.). These roadmaps would identify strategic technologies that offer the greatest promise of reducing carbon intensity, review the current state of technology development, assess needed areas of research and development, determine related infrastructure needs, discuss barriers to commercial deployment of the technology, and evaluate possible environmental, economic, or energy disbenefits that would need to be overcome. These roadmaps would be “evergreen” — i.e., would be updated at periodic intervals (for example, every 3-5 years) to take into account new data on the performance or cost of different technologies, changing R&D needs or technology options not previously identified.

As recommended by the Global Energy Technology Strategy Program, sectoral roadmaps should initially identify a diversified portfolio of candidate technologies for study and evaluation in order to stimulate innovation and hedge against the risk of technology failure. Over time, however, the roadmaps should prioritize technology options on the basis of their relative effectiveness and ease of commercialization. This is necessary so that resources can be concentrated on the technology paths of greatest promise rather than dissipated across technologies which are high risk scientifically or economically. In many cases, sectoral roadmaps should also classify candidate technologies as “transitional” or “long-term.” The former would include technologies capable of near-term commercial deployment and able to provide significant reductions in carbon intensity but not to eliminate CO₂ emissions; the latter category would include technologies that have a zero-emission profile and very large potential benefits but require extended lead-times and sizable R&D investment before widespread application could occur. In the transportation sector, fuel-efficient hybrid or direct-injection gasoline or diesel vehicles would represent transitional technologies, whereas fuel-cell vehicles powered by renewable sources of hydrogen would represent a long-term technology.

Technology roadmaps would create the foundation for technology development programs implemented by government and industry. The design and management of these programs will be extraordinarily important to assure that rigorous technical standards are

applied, apolitical priorities and performance goals are set and maintained, and funding levels are sufficient to accomplish stated objectives. One option would be to create independent non-profit corporations, directed by senior government and industry managers, to oversee technology development programs for each sector. The goal of these corporations would be to assure the continuity and permanency of the R&D process and to insulate it from congressional earmarks or politically driven efforts to reduce or redirect funding. Ideally, the corporation’s budget would derive equally from public- and private-sector sources. For example, Congress could require direct financial contributions by companies in each sector or impose a tax on emission-generating activities such as power generation or fossil-fuel production. Funds appropriated by Congress or contributed by industry could be placed in a special trust dedicated to developing climate-friendly technologies. The overall level of funding would be closely tied to the targets established by the technology roadmap for the sector and Congress would have limited discretion to adjust funding levels on a year-by-year basis. The non-profit corporations might create “centers of excellence” at major universities to undertake cutting-edge R&D and take advantage of the expertise of top scientists in academia, government, and industry; the recently announced research partnership between Stanford University and three leading energy companies (Exxon, Schlumberger, and GE) provides a possible precedent for such centers.

Joint government-industry R&D should not be the only or preferred mechanism for developing climate-friendly technologies but should be reserved for projects that are too risky, long-term, or challenging scientifically to be undertaken by individual companies or industry consortia. Incentives should also be created for company-only R&D — for example, by providing tax credits for research or pre-commercial development projects for new products or technologies that fit within the goals of the applicable technology roadmap.

The most challenging aspect of a national climate change strategy will be to assure that new technologies do not sit on the shelf but are actually deployed at levels that meet the strategy’s targets and timetables for reducing the carbon intensity of our economy. A combination of public-private R&D programs, tax incentives for company-only investments in new technologies, and market-driven innova-

tion will undoubtedly accelerate the proliferation of low-emitting energy and transportation solutions — particularly if the preferred technology path and timeline for key sectors is clearly defined at the level of national policy. But will these drivers for technology change alone be sufficient to produce an acceptable rate of progress? Probably not. A further combination of carrots and sticks will in all likelihood be unavoidable. These could include relatively benign measures like tax credits for replacing higher-emitting vehicles or power plants with low-emitting alternatives. Or they could include more coercive approaches like technology penetration targets — i.e., X number of fuel cell vehicles on the road by 2030 — backed up by penalties if companies fall short of these targets. Or industry and government could negotiate agreements that commit sectors to achieving specific reductions in carbon intensity by certain dates, with the potential for legally enforceable requirements if these reduction targets are not met. Trading of emission credits should be an essential feature of all these approaches so that technology pioneers are rewarded and laggards have some ability to cushion the impacts of non-performance.

Just as a system of short-term emission caps requires reliable data on emissions trends to measure progress, a long-term technology-driven climate change strategy also will depend on credible and complete information that enables policymakers to track emissions at the economy-wide and sectoral level, measure improvements in carbon intensity and assess the performance and level of penetration of new technologies. Existing GHG inventories and registries (such as the DOE 1605(b) program) could be retooled to meet these objectives.

The challenges of designing long-term climate policies focussed on interrelated targets for emission reduction and technology change should not be underestimated. To be effective, these policies will require aggressive goals for modifying the carbon profile of our economy, stressful transitions away from proven and valued technologies, and a commitment of resources far exceeding current government or industry expenditures on climate mitigation measures. Moreover, a climate change strategy spanning a century or more does not mean extended inaction. Business will still need to devote considerable expertise and dollars to addressing the climate

change threat, although the initial focus may be not on immediate emission reductions but on technology investments that provide the foundation for more dramatic reductions at a later date. Companies with entrenched interests in carbon-intensive businesses may oppose government-subsidized investments in new technologies that threaten established markets and ultimately their livelihoods, but over time technology breakthroughs should give rise to wealth-creation opportunities for new entrants and create a constituency for continued technology turnover in the economy. Indeed, technology innovations originally intended to reduce carbon intensity may achieve improvements in product efficiency and performance which ultimately boost American competitiveness and economic leadership.

Technology breakthroughs coupled with long-term emission reduction goals can add an important new element to the climate equation that enables us to move beyond the current impasse, where progress is being stymied by seemingly unstoppable worldwide trends toward increased energy consumption, rising economic activity, and higher GHG emissions. The technology path recognizes that we cannot meaningfully change the carbon profile of our economy unless we first invest in radically new energy and transportation systems that provide tools that policymakers lack today to reduce emissions in an economically sustainable manner. If these tools become available, we may be able to overcome deeply rooted resistance, both in the United States and around the world, to reduced dependence on energy sources that have consistently delivered economic growth and rising standards of living. Whereas developing countries are unlikely to accept restrictions on fossil fuels that provide the only path to economic growth in the near term, they may be willing to accept carbon constraints once efficient and economically sustainable alternative technologies are available that support continued growth in per capita income and improving standards of living.

The potential exists to break the current logjam in climate policy by forging a broad-based agreement on a new policy framework based on the combination of long-term targets for reducing the carbon intensity of our economy and development of breakthrough technologies to meet these targets. Congress and the president should seize this opportunity or our efforts to address climate change will remain ineffective. •



The potential exists to break the current logjam in climate policy by forging a new framework based on the combination of long-term targets for reducing the carbon intensity of our economy and development of breakthrough technologies to meet these targets.

Hot potato
Feb 13th 2003
From The Economist print edition
The IPCC had better check its calculations

AT THE beginning of 2001 the Intergovernmental Panel on Climate Change (IPCC) released, as the main result of its massive Third Assessment Review, a set of figures that have become the most-cited numbers in the field of environmental policy, and quite possibly the most-cited numbers in any field of public policy. The panel, whose task was to assess the extent to which emissions of greenhouse gases may warm the planet over the coming century, reported that "globally averaged mean surface temperature is projected to increase by 1.4 to 5.8°C over the period 1990 to 2100."

This alarming conclusion has become the starting-point for popular and official discussion of global warming and the policies that might mitigate it. Bear in mind how expensive some approaches to the problem, such as the Kyoto Protocol, might be if governments actually succeeded in implementing them. Vast sums are at stake. As a rule, the IPCC is careful to attach warnings to its projections. Journalists are impatient with that: they prefer "prediction" to "projection" (less vague) and like to talk of temperature rising by "as much as 5.8°" rather than quoting the full range. This is all very misleading-but the panel cannot be blamed for the way its work is reported. What it can be blamed for is the seriously flawed methods it has followed in making its estimates. In recent months, two distinguished commentators - Ian Castles of the National Centre for Development Studies at Australian National University, formerly the head of Australia's national office of statistics; and David Henderson of the Westminster Business School, formerly the chief economist of the OECD-have put together a critique of the panel's Special Report on Emissions Scenarios (SRES).

The report claims to "provide the basis for future assessment of climate change", but Mr Castles and Mr Henderson point to serious flaws in its analysis and results. Last year they began writing to the chairman of the panel. Following an invitation to a technical meeting convened by the IPCC last month, they have offered further comments. The critique which thus evolved is to be published next month (see below for web link to letters).

One key problem with the IPCC's report, sufficient by itself for Mr Castles and Mr Henderson to declare the document "technically unsound", is the way the scenario-builders have based their projections of future output on national GDP estimates which have been converted to a common measure using market exchange rates. This procedure leads them to overstate the initial gaps in average incomes between rich and poor countries-because prices tend to be much lower in poor countries. Those gaps are in turn crucial for the IPCC's projections, because the method used in the scenarios assumes not only that the rich countries will continue to get richer but also, in most of the 40 scenarios considered, that the greater part of the (overstated) initial gaps between rich and poor will be closed by the end of the century.

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The combination of overstated gaps and of built-in assumptions about the extent of convergence in the average incomes of rich and poor countries yields projections of GDP for developing regions which are improbably high. Even the scenarios which give the lowest figures for projected cumulative emissions in the course of the century assume that average incomes in the developing countries as a whole will increase at a much faster rate than has ever been achieved in the past.

Miracles and anomalies

The unreality of the assumptions about economic growth in developing countries is highlighted by disaggregated projections which were recently released on the SRES website <<http://sres.ciesin.org/tgcia/>>. These projections imply that, even for the lowest emission scenarios, the average income of South Africans will have overtaken that of Americans by a very wide margin by the end of the century. In fact America's per capita income will then have been surpassed not only by South Africa's, but also by that of other emerging economic powerhouses, including Algeria, Argentina, Libya, Turkey and North Korea. The SRES summary for policymakers tells anxious governments that the 40 scenarios "together encompass the current range of uncertainties of future emissions". Plainly, this is incorrect. The panel's low-emissions scenarios make exceptionally optimistic assumptions about economic growth in the developing world. But it is impossible to say, without running the whole exercise afresh, what the properly calculated range of projections for temperature changes would be.

Mr Castles and Mr Henderson offer a variety of other criticisms of the SRES, and of the panel's treatment of economic issues more generally. They complain, for instance, that history is too much neglected in the consideration of future trends. They also point out that developments in the first ten years of the scenario period, 1990-2000, were pretty clear by the time the SRES was published in 2000, and that in some respects they diverged substantially from the scenarios' projections; yet the report pays them little or no heed. Mr Castles and Mr Henderson argue that the circle of those involved in the climate-change exercise has been too restricted. For the future, the panel should draw on a wider range of economic and statistical interests and expertise. In particular, where its member governments are concerned, there needs to be a greater involvement of economic ministries and statistical agencies, alongside environment ministries.

The full panel meets next week in Paris to review the preparation of its Fourth Assessment Review. It should take the opportunity to consider the Castles-Henderson critique and resolve to do something about it. See the Castles/Henderson letters at the following web link:

<http://www.economist.com/displaygeneric.cfm?pageheadgif=FinanceandEconomics&key=efhpl>



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Washington, DC 20585

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TEXT:
19 February 2003

Dear CCSP/SGCR Principals, Working Group Co-Chairs, and Lead Authors of the Strategic Plan

Attached please find the DRAFT agenda for the two mini-retreats taking place on 24 and 26 February (1:00 - 5:30 p.m.). Take a moment to review <24&26Feb_DRAFTagenda.doc>; and, if you feel that there are any glaring omissions or deficiencies, please send a reply to me at <ddokken@usgcrp.gov>.

This message also serves as cover to several CCSP-generated documents that are intended to facilitate revision of the document: a general comments overview and a matrix of chapter linkages.

But first, the practical details:

yyyy National Science Foundation
yyy Stafford II, Room 595
yy 24 and 26 February 2003
1:00 - 5:30 p.m.

CHECK-IN PROCEDURE

Meeting attendees must pick up visitor badges at the NSF Information Center, located at 4201 Wilson Blvd., Arlington, VA (north side of the building, Stuart & 9th Street entrance). Then proceed to the Stafford II building (4121 Wilson Blvd.), present your credentials, and take the elevator to the fifth floor and follow the signs to Room 595.

Take a moment to scan the Participants List appended to the end of this message. As indicated in the Guidance Memo (Tue, 04 Feb 2003 15:42), if a chapter lead is unable to attend, please identify another member of your writing team to attend in your stead. The breakout groups on Day 2 overlap so teams need to cover concurrent activities.

To ensure that requested participants are not turned away by Security, send me mail with replacement's name and affiliation. A final list will be provided to NSF by COB Friday, 21 February. Apologies for the short notice. Snow intervened.

And finally, please take a moment to RSVP to Leslie Branch (<lbranch@usgcrp.gov>) so we can better gauge numbers.

GENERAL COMMENTS OVERVIEW

112 reviews of the Discussion Draft Strategic Plan yielded 160 pages of
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what have been categorized as *General Comments*. Many of these comments refer to particular chapters or combinations of chapters in the draft plan, and others are clearly relevant to particular chapters. To facilitate appropriate consideration of these comments by chapter authors, the attached file (<Chapters_Gen_Comments_2-19.doc>) pulls from the master collation an annotated listing of review comments that pertain to each chapter. Each entry lists reviewer and affiliation, page and line numbers of the comment (using the version of the draft plan that is posted on <www.climate-science.gov>), and in most cases an indication of the content of the comment.

CHAPTER LINKAGES MATRIX

Two files are attached: <links021803.doc> and <crosslinks021803.xls>. The former lists the key and illustrative questions for each chapter, and identifies the specific questions to which they should link in other chapters. The Excel matrix shows the links across chapters. The first two columns identify the individual questions in each chapter, and subsequent columns identify the linked question(s).

This cursory description will be elaborated upon at the mini-retreat. However, if you have insight on how to improve the usefulness of said documents, or need a quick tutorial to decipher nomenclature, please contact Margarita Conkright [<mconkright@nodc.noaa.gov>, 202.419.3466 (direct voice)].

MISCELLANY

An LCD projector will be available in the main plenary room. If you have AV requirements for the breakout sessions please let me know ASAP.

Of course, if you have any comments or concerns, do not hesitate to contact me.

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112 reviews of the Discussion Draft Strategic Plan yielded 160 pages of what have been categorized as *General Comments*. Many of these comments refer to particular chapters or combinations of chapters in the draft plan, and others are clearly relevant to particular chapters. To facilitate appropriate consideration of these comments by chapter authors, the attached file (<Chapters_Gen_Comments_2-19.doc>) pulls from the master collation an annotated listing of review comments that pertain to each chapter. Each entry lists reviewer and affiliation, page and line numbers of the comment (using the version of the draft plan that is posted on <www.climate.gov>), and in most cases an indication of the content of the comment.

CHAPTER LINKAGES MATRIX

Two files are attached: <links021803.doc> and <crosslinks021803.xls>. The former lists the key and illustrative questions for each chapter, and identifies the specific questions to which they should link in other chapters. The Excel matrix shows the links across chapters. The first two columns identify the individual questions in each chapter, and subsequent columns identify the linked question(s).

This cursory description will be elaborated upon at the mini-retreat. However, if you have insight on how to improve the usefulness of said documents, or need a quick tutorial to decipher nomenclature, please contact Margarita Conkright [<mconkright@nodc.noaa.gov>, 202.419.3466 (direct voice)].

MISCELLANY

An LCD projector will be available in the main plenary room. If you have AV requirements for the breakout sessions please let me know ASAP.

Of course, if you have any comments or concerns, do not hesitate to contact me.

Dave Dokken
U.S. Global Change Research Program
Climate Change Science Program
1717 Pennsylvania Avenue, NW
Suite 250
Washington, DC 20006
USA
+1.202.419.3473 (direct voice)
+1.202.223.3065 (fax)
<http://www.usgcrp.gov/>

MASTER PARTICIPANTS LIST

James R. Mahoney, Department of Commerce
Richard Moss, Battelle PNNL
Ghassem Asrar, National Aeronautics and Space Administration
Margaret S. Leinen, National Science Foundation
James Andrews, Department of Defense
Margot Anderson, Department of Energy
Mary Glackin, National Oceanic and Atmospheric Administration
Charles (Chip) Groat, U.S. Geological Survey
William Hohenstein, U.S. Department of Agriculture
Linda Lawson, Department of Transportation

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Melinda Moore, Department of Health and Human Services
Patrick Neale, Smithsonian Institution
Aristides Patrinos, Department of Energy
Michael Slimak, U.S. Environmental Protection Agency
Harlan Watson, Department of State
Kathie L. Olsen, Office of Science and Technology Policy
Philip Cooney, Council on Environmental Quality
David Radzanowski, Office of Management and Budget
Erin Wuchte, Office of Management and Budget
Margaret R. McCalla, Office of the Federal Coordinator for Meteorology

Dave Fahey, National Oceanic and Atmospheric Administration
Phil Decola, National Aeronautics and Space Administration
Jay Fein, National Science Foundation
Randy Dole, National Oceanic and Atmospheric Administration
Rick Lawford, National Oceanic and Atmospheric Administration
Jared Entin, National Aeronautics and Space Administration
Tom Loveland, U.S. Geological Survey
Garik Gutman, National Aeronautics and Space Administration
Diane Wickland, National Aeronautics and Space Administration
Roger Dahlman, Department of Energy
Steve Shafer, U.S. Department of Agriculture
Susan Herrod-Julius, U.S. Environmental Protection Agency
Janet Gamble, U.S. Environmental Protection Agency
Caitlin Simpson, National Oceanic and Atmospheric Administration
Lou Brown, National Science Foundation
Claudia Nierenberg, National Oceanic and Atmospheric Administration
John Houghton, Department of Energy
Joel Scheraga, U.S. Environmental Protection Agency
Dave Bader, Department of Energy
Chris Justice, University of Maryland
Keya Chatterjee, Department of State
Wanda Ferrell, Department of Energy
Tom Spence, National Science Foundation
Jack Kaye, National Aeronautics and Space Administration
Mary Gant, Department of Health and Human Services
Robert Marlay, Department of Energy
David Conover, Department of Energy
Jerry Elwood, Department of Energy
Ko Barrett, USAID
David Halpern, Office of Science and Technology Policy

Jeff Amthor, Department of Energy
Susan Avery, University of Colorado
Margarita Konkright, National Oceanic and Atmospheric Administration
Dave Dokken, University Corporation for Atmospheric Research
Suzanna Eden, University Corporation for Atmospheric Research
David Goodrich, National Oceanic and Atmospheric Administration
Stephanie Harrington, National Oceanic and Atmospheric Administration
Chet Koblinsky, National Aeronautics and Space Administration
David Legler, USCLIVAR Program Office
Sandy MacCracken, University Corporation for Atmospheric Research
Jessica Orrego, University Corporation for Atmospheric Research
Rick Piltz, University Corporation for Atmospheric Research
Nick Sundt, University Corporation for Atmospheric Research
Robert Worrest, GCRI
Bud Ward, Independent Consultant
Mike Jawson, U.S. Department of Agriculture
David Allen, University Corporation for Atmospheric Research
Jim Butler, National Oceanic and Atmospheric Administration
- att1.htm - 24&26Feb_DRAFTagenda.doc - Chapters_Gen_Comments_2-19.doc -
links021803.doc - crosslinks021803.xls===== ATTACHMENT 1

0212_f_i4h0e003_ceq.txt

CC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC:ari.patrinios@science.doe.gov (ari.patrinios@science.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:watsonhl@state.gov (watsonhl@state.gov [UNKNOWN])
READ:UNKNOWN

CC:neale@serc.si.edu (neale@serc.si.edu [UNKNOWN])
READ:UNKNOWN

CC:dfahey@a1.noaa.gov (dfahey@a1.noaa.gov [UNKNOWN])
READ:UNKNOWN

TEXT:
19 February 2003

Dear CCSP/SGCR Principals, Working Group Co-Chairs, and Lead Authors
of the Strategic Plan -

Attached please find the DRAFT agenda for the two mini-retreats
taking place on 24 and 26 February (1:00 - 5:30 p.m.). Take a moment
to review <24&26Feb_DRAFTagenda.doc>; and, if you feel that there are
any glaring omissions or deficiencies, please send a reply to me at
<ddokken@usgcrp.gov>.

This message also serves as cover to several CCSP-generated documents
that are intended to facilitate revision of the document: a general
comments overview and a matrix of chapter linkages.

But first, the practical details

National Science Foundation
Stafford II, Room 595
24 and 26 February 2003
1:00 - 5:30 p.m.

CHECK-IN PROCEDURE

Meeting attendees must pick up visitor badges at the NSF Information
Center, located at 4201 Wilson Blvd., Arlington, VA (north side of
the building, Stuart & 9th Street entrance). Then proceed to the
Stafford II building (4121 Wilson Blvd.), present your credentials,
and take the elevator to the fifth floor and follow the signs to Room
595.

Take a moment to scan the Participants List appended to the end of
this message. As indicated in the Guidance Memo (Tue, 04 Feb 2003
15:42), if a chapter lead is unable to attend, please identify
another member of your writing team to attend in your stead. The
breakout groups on Day 2 overlap so teams need to cover concurrent
activities.

To ensure that requested participants are not turned away by
Security, send me mail with replacement's name and affiliation. A
final list will be provided to NSF by COB Friday, 21 February.
Apologies for the short notice. Snow intervened.

And finally, please take a moment to RSVP to Leslie Branch
(<lbranch@usgcrp.gov>) so we can better gauge numbers.

GENERAL COMMENTS OVERVIEW

chapters. To facilitate appropriate consideration of these comments by chapter authors, the attached file (<Chapters_Gen_Comments_2-19.doc>) pulls from the master collation an annotated listing of review comments that pertain to each chapter. Each entry lists reviewer and affiliation, page and line numbers of the comment (using the version of the draft plan that is posted on <www.climate-science.gov>), and in most cases an indication of the content of the comment.

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<div>

This cursory description will be elaborated upon at the mini-retreat. However, if you have insight on how to improve the usefulness of said documents, or need a quick tutorial to decipher nomenclature, please contact Margarita Conkright [<mconkright@nodc.noaa.gov>; 202.419.3466 (direct voice)].

MISCELLANY

An LCD projector will be available in the main plenary room. If you have AV requirements for the breakout sessions please let me know ASAP.

Of course, if you have any comments or concerns, do not hesitate to contact me.

</div>

<div>Dave Dokken

U.S. Global Change Research Program

Climate Change Science Program

1717 Pennsylvania Avenue, NW

Suite 250

Washington, DC 20006

USA

+1.202.419.3473 (direct voice)

+1.202.223.3065 (fax)</div>

<div>http://www.usgcrp.gov/</div>

<div>
</div>

<div>
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</div>

<div>MASTER PARTICIPANTS

LIST</div>

<div>
</div>

<div>James R. Mahoney, Department of Commerce</div>

<div>Richard Moss, Battelle

PNNL</div>

<div>Ghassem Asrar, National

Aeronautics and Space Administration

Margaret S. Leinen, National Science Foundation

James Andrews, Department of Defense

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Mary Glackin, National Oceanic and Atmospheric Administration

Charles (Chip) Goat, U.S. Geological Survey

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Nick Sundt, University Corporation for Atmospheric Research

Robert Worrest, GCRIO

Bud Ward, Independent Consultant

Mike Jawson, U.S. Department of Agriculture

David Allen, University Corporation for Atmospheric Research

0216_f_t1r2e003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Stephanie Harrington <Stephanie.Harrington@noaa.gov> (Stephanie Harrington <Stephanie.Harrington@noaa.gov> [UNKNOWN])

CREATION DATE/TIME:21-FEB-2003 14:51:29.00

SUBJECT:: NAS briefing to CCSP agency representatives

TO:Margaret.R.Mccalla@noaa.gov (Margaret.R.Mccalla@noaa.gov [UNKNOWN])
READ:UNKNOWN

TO:gant@niehs.nih.gov (gant@niehs.nih.gov [UNKNOWN])
READ:UNKNOWN

TO:EmSimmons@usaid.gov (EmSimmons@usaid.gov [UNKNOWN])
READ:UNKNOWN

TO:andrewj@onr.navy.mil (andrewj@onr.navy.mil [UNKNOWN])
READ:UNKNOWN

TO:Erin Wuchte (CN=Erin Wuchte/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:ari.patrin@societe.doe.gov (ari.patrin@societe.doe.gov [UNKNOWN])
READ:UNKNOWN

TO:watsonh1@state.gov (watsonh1@state.gov [UNKNOWN])
READ:UNKNOWN

TO:neale@serc.si.edu (neale@serc.si.edu [UNKNOWN])
READ:UNKNOWN

TO:mleinen@nsf.gov (mleinen@nsf.gov [UNKNOWN])
READ:UNKNOWN

TO:Margot.Anderson@hq.doe.gov (Margot.Anderson@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

TO:David Halpern (CN=David Halpern/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TO:mary.glackin@noaa.gov (mary.glackin@noaa.gov [UNKNOWN])
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TO:linda.lawson@ost.dot.gov (linda.lawson@ost.dot.gov [UNKNOWN])
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READ:UNKNOWN

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READ:UNKNOWN

TO:gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

TO:cgroat@usgs.gov (cgroat@usgs.gov [UNKNOWN])
READ:UNKNOWN

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TO:whohest@OCE.USDA.gov (whohest@OCE.USDA.gov [UNKNOWN])
READ:UNKNOWN

CC:djwhite@nsf.gov (djwhite@nsf.gov [UNKNOWN])
READ:UNKNOWN

CC:Kathy.Holmes@science.doe.gov (Kathy.Holmes@science.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:turekianvc@state.gov (turekianvc@state.gov [UNKNOWN])
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CC:sambrose@hq.nasa.gov (sambrose@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:VGorsevski@usaid.gov (VGorsevski@usaid.gov [UNKNOWN])
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CC:scheraga.joel@epa.gov (scheraga.joel@epa.gov [UNKNOWN])
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CC:hratch.semerjian@nist.gov (hratch.semerjian@nist.gov [UNKNOWN])
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CC:Jack.Kaye@hq.nasa.gov (Jack.Kaye@hq.nasa.gov [UNKNOWN])
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CC:Patel-weynandTO@state.gov (Patel-weynandTO@state.gov [UNKNOWN])
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CC:Debbie.Payne@noaa.gov (Debbie.Payne@noaa.gov [UNKNOWN])
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CC:talleyt@state.gov (talleyt@state.gov [UNKNOWN])
READ:UNKNOWN

CC:david.goodrich@noaa.gov (david.goodrich@noaa.gov [UNKNOWN])
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CC:mgarcia@usgs.gov (mgarcia@usgs.gov [UNKNOWN])
READ:UNKNOWN

CC:Jerry.Elwood@science.doe.gov (Jerry.Elwood@science.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:kbarrett@usaid.gov (kbarrett@usaid.gov [UNKNOWN])
READ:UNKNOWN

CC:tspence@nsf.gov (tspence@nsf.gov [UNKNOWN])
READ:UNKNOWN

CC:James.R.Mahoney@noaa.gov (James.R.Mahoney@noaa.gov [UNKNOWN])
READ:UNKNOWN

TEXT:

The NAS will brief the CCSP on the content of their review of the Discussion Draft of the

0216_f_t1r2e003_ceq.txt

Strategic Plan for the U.S. Climate Change Science Program on Tuesday,
February 25, 11:30 am -
12:30 pm, in the CCSP large conference room at 1717 Pennsylvania Ave.,
Suite 250. Due to space
limitations, please limit your attendance to one representative per agency.

Visitors to 1717 Pennsylvania Ave. need to sign in at the front desk when
entering the building.
No other security measures are in place.

Please let me know if you have any questions,
Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944

0220_f_pj03e003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 21-FEB-2003 17:19:05.00

SUBJECT: Re: Heads Up: Climate: National Academy Report next week

TO: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])

READ: UNKNOWN

TEXT:

thanks for the heads up, Phil

Phil Cooney

02/21/2003 05:17:04 PM

Record Type: Record

To: Dana M. Perino/CEQ/EOP@EOP, Scott

McClellan/WHO/EOP@Exchange@EOP

cc: See the distribution list at the bottom of this message

Subject: Heads Up: Climate: National Academy Report next week

Dana and Scott, next Wednesday, the National Academy of Sciences will release its review of the Administration's 10 year draft strategic plan on climate change science research (that was released for public review and comment last November). Below is an announcement for a pre-release briefing for federal agencies on Tuesday. I have an indication that the report will be very critical of the plan and the Administration -- but it is hard to gauge the likely depth of press interest on this. I spoke today with Stephanie Harrington at the Department of Commerce and made clear that they should be prepared to handle press response... and that we would be referring inquiries to them, but would appreciate their talking points and Qs and As. Phil

----- Forwarded by Phil Cooney/CEQ/EOP on 02/21/2003
04:54 PM -----

Stephanie Harrington <Stephanie.Harrington@noaa.gov>

02/21/2003 03:00:29 PM

Record Type: Record

To: See the distribution list at the bottom of this message

cc: See the distribution list at the bottom of this message

Subject: NAS briefing to CCSP agency representatives

The NAS will brief the CCSP on the content of their review of the Discussion Draft of the Strategic Plan for the U.S. Climate Change Science Program on Tuesday, February 25, 11:30 am - 12:30 pm, in the CCSP large conference room at 1717 Pennsylvania Ave., Suite 250. Due to space limitations, please limit your attendance to one representative per agency.

Visitors to 1717 Pennsylvania Ave. need to sign in at the front desk when

Page 1

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entering the building.
No other security measures are in place.

Please let me know if you have any questions,
Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944

Message Sent

To:

whohenst@OCE.USDA.gov
neale@serc.si.edu
cgroat@usgs.gov
watsonhl@state.gov
gasrar@hq.nasa.gov
ari.patrinis@science.doe.gov
mmoore@osophs.dhhs.gov
Phil Cooney/CEQ/EOP@EOP
slimak.michael@epa.gov
Erin Wuchte/OMB/EOP@EOP
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andrewj@onr.navy.mil
mary.glackin@noaa.gov
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gant@niehs.nih.gov
Margot.Anderson@hq.doe.gov
Margaret.R.Mccalla@noaa.gov
mleinen@nsf.gov

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To:

James.R.Mahoney@noaa.gov
vicki.horton@noaa.gov
tspence@nsf.gov
Jack.Kaye@hq.nasa.gov
kbarrett@usaid.gov
hratch.semerjian@nist.gov
Jerry.Elwood@science.doe.gov
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turekianvc@state.gov
Debbie.Payne@noaa.gov
Kathy.Holmes@science.doe.gov
Patel-weynandTO@state.gov
djwhite@nsf.gov
ipo@usgcrp.gov

Message Copied

To:

Kameran L. Onley/CEQ/EOP@EOP
Debbie S. Fiddelke/CEQ/EOP@EOP
James Connaughton/CEQ/EOP@EOP

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Jay P. Lefkowitz/OPD/EOP@Exchange@EOP

Joel D. Kaplan/WHO/EOP@Exchange@EOP

Kevin M. O'Donovan/OVP/EOP@EOP

Robert C. McNally/OPD/EOP@EOP

Kathie L. Olsen/OSTP/EOP@EOP

Kathryn M. Harrington/OSTP/EOP@EOP

Kenneth L. Peel/CEQ/EOP@EOP

CEQ 425 PC

NEWS

THE NATIONAL ACADEMIES
Advisers to the Nation on Science, Engineering, and Medicine

NATIONAL ACADEMY OF SCIENCES • NATIONAL ACADEMY OF ENGINEERING • INSTITUTE OF MEDICINE • NATIONAL RESEARCH COUNCIL

Date: Feb. 25, 2003
Contacts: Bill Kearney, Media Relations Officer
Christian Dobbins, Media Relations Assistant
Office of News and Public Information
(202) 334-2138; e-mail <news@nas.edu>

FOR IMMEDIATE RELEASE

**GOVERNMENT CLIMATE-CHANGE RESEARCH PLAN IS GOOD START,
BUT MAJOR IMPROVEMENTS NEEDED TO MEET NATION'S NEEDS**

WASHINGTON – While the federal government has taken a good first step toward better understanding and responding to climate change by drafting a strategic plan that contains new research initiatives, the plan lacks a clear guiding vision and does not sufficiently meet the needs of decision-makers who must deal with the effects of climate change, says a new report from the National Academies' National Research Council. The committee that wrote the report also noted that the president's fiscal year 2004 budget request appears to leave funding relatively unchanged for the U.S. Climate Change Science Program (CCSP), which wrote the draft plan, despite the important new initiatives called for in the plan.

"While past climate-change science has focused on how climate is changing and affecting other natural systems, future science must also focus on more applied research that can directly support decision-making," said committee chair Thomas E. Graedel, professor of industrial ecology, Yale University School of Forestry and Environmental Studies, New Haven, Conn. "Research is especially needed to improve our understanding of the possible impacts of climate change on ecosystems and human society, as well as options for responding to – and reducing – these effects."

The federal government formed CCSP a year ago to facilitate climate-change research across 13 federal agencies. CCSP released its draft strategic plan for public comment in November and also held a workshop in Washington where hundreds of climate scientists and other stakeholders commented on the plan. CCSP asked the Research Council to review the draft plan as well.

The draft plan provides a solid foundation for future research by identifying some exciting new initiatives that build on the success of the Global Change Research Program, which has been funding valuable research for more than a decade, the committee said. It commended CCSP for introducing an emphasis on the need for science to address national needs, including support for people in the public and private sectors whose decisions are affected by climate change. In addition, CCSP has made genuine overtures to the research community, indicating a strong interest in developing a plan that is consistent with current scientific thinking. Some of the more important initiatives in the plan include a call for models that can offer trusted projections, or forecasts, of climate change, and cutting-edge research into aerosols and the carbon cycle that is needed to improve our understanding of climate change and variability.

(MORE)

will be needed to develop the computing power necessary for some of the modeling and data collection called for in the draft plan.

Existing management processes may not be adequate to ensure that the 13 agencies involved in CCSP cooperate toward the program's goals, the committee found. The revised strategic plan needs to clearly describe the responsibilities of program leadership and ways to foster greater agency cooperation. At the same time, CCSP should encourage participation by other mission-oriented agencies, such as the Federal Emergency Management Agency and the land management agencies of the Department of the Interior.

The committee, whose work was sponsored by the U.S. Climate Change Science Program, will review a revised strategic plan later this year. The National Research Council is the principal operating arm of the National Academy of Sciences and the National Academy of Engineering. It is a private, nonprofit institution that provides science and technology advice under a congressional charter. A committee roster follows.

Copies of *Planning Climate and Global Change Research: A Review of the Draft U.S. Climate Change Science Program Strategic Plan* will be available this spring from the National Academies Press; tel. (202) 334-3313 or 1-800-624-6242 or on the Internet at <http://www.nap.edu>. Reporters may obtain a pre-publication copy from the Office of News and Public Information (contacts listed above).

#

[This news release and report are available at <http://national-academies.org>]

bk: d, l

CEQ
390 PC



-EXECUTIVE OFFICE OF THE PRESIDENT-

COUNCIL ON ENVIRONMENTAL QUALITY

730 Jackson Place, NW
Washington, DC 20503

PHONE: (202) 456-6224
FAX: (202) 456-2710

TO:	Kevin Kolesar Ted Kassinger	Dr. Marburger
FROM:	Phil Cooney	
DATE:	2/25/02	PAGES: 2 (INCLUDING COVER SHEET)

COMMENTS: ^{FYI,} We will be mailing this memo out tomorrow —
Phil

The document(s) accompanying this FAX transmission may contain information, which is confidential and/or sensitive. The information is intended only for use by the individual or entity named on this transmission sheet. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of any action in reliance on the contents of this faxed information is strictly prohibited, and that the documents should be returned to this office immediately. In this regard, if you have received this FAX in error, please notify us by telephone immediately so that we can arrange for the return of the original document(s) to us.

002067

CEQ 004405



CHAIRMAN

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
WASHINGTON, D.C. 20503

February 25, 2002

MEMORANDUM TO: SECRETARY DONALD EVANS
SECRETARY SPENCER ABRAHAM
SECRETARY COLIN POWELL
SECRETARY ANN VENEMAN
SECRETARY GALE NORTON
SECRETARY TOMMY THOMPSON
SECRETARY DONALD RUMSFELD
SECRETARY NORMAN MINETA
ADMINISTRATOR CHRISTINE TODD WHITMAN
DIRECTOR MITCH DANIELS
DIRECTOR LARRY LINDSEY
DIRECTOR JOHN MARBURGER
ADMINISTRATOR SEAN O'KEEFE
DIRECTOR RITA COLWELL

FROM: JAMES L. CONNAUGHTON *JLC*

RE: COMMITTEE ON CLIMATE CHANGE SCIENCE AND
TECHNOLOGY INTEGRATION

Pursuant to the recommendation made at the February 4, 2002 cabinet-level Climate Change Working Group and accepted by the President, I am pleased to inform you of your membership on the new Committee on Climate Change Science and Technology Integration. Its functions include providing recommendations to the President concerning climate science and technology, the movement of funding and programs across agency boundaries and coordination with OMB on implementing recommendations. Secretary Evans will initially chair the Committee, with Secretary Abraham as the Vice Chair. Science Advisor Marburger will serve as the Executive Director. The Committee will report periodically to the existing Climate Change Review Panel. (Attachment).

An Interagency Working Group on Climate Change on Climate Science and Technology will provide support to this effort and its work should commence immediately to ensure that planning for the Fiscal Year 2004 budget reflects a base review of the existing federal science and technology research programs. This review would culminate in the acceptance of related recommendations by the Climate Change Review Panel later this year.

You should expect to hear from Secretary Evans shortly about next steps.

Attachment

cc: Dr. Condoleeza Rice, National Security Advisor

Recycled Paper

CEQ 004406

0246_f_3ph6e003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Scott Rayder <Scott.Rayder@noaa.gov> (Scott Rayder <Scott.Rayder@noaa.gov> [UNKNOWN])

CREATION DATE/TIME: 25-FEB-2003 18:43:49.00

SUBJECT: [Fwd: EPW: INHOFE RESPONDS TO CLIMATE REPORT]

TO: Michael Catanzaro <Michael_Catanzaro@epw.senate.gov> (Michael Catanzaro <Michael_Catanzaro@epw.senate.gov> [UNKNOWN])
READ: UNKNOWN

TO: Robert Card <Robert.Card@hq.doe.gov> (Robert Card <Robert.Card@hq.doe.gov> [UNKNOWN])
READ: UNKNOWN

TO: Harlan Watson <WatsonHL@state.gov> (Harlan Watson <WatsonHL@state.gov> [UNKNOWN])
READ: UNKNOWN

TO: MaryBeth Nethercutt <MaryBeth.Nethercutt@noaa.gov> (MaryBeth Nethercutt <MaryBeth.Nethercutt@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: James R Mahoney <James.R.Mahoney@noaa.gov> (James R Mahoney <James.R.Mahoney@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: Kevin Kolevar <Kevin.Kolevar@hq.doe.gov> (Kevin Kolevar <Kevin.Kolevar@hq.doe.gov> [UNKNOWN])
READ: UNKNOWN

TO: Kathie L. Olsen (CN=Kathie L. Olsen/OU=OSTP/O=EOP@EOP [OSTP])
READ: UNKNOWN

TO: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Craig Montesano <Craig.Montesano@noaa.gov> (Craig Montesano <Craig.Montesano@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: "Jordan St. John" <Jordan.St.John@noaa.gov> ("Jordan St. John" <Jordan.St.John@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: Conrad C Lautenbacher <Conrad.C.Lautenbacher@noaa.gov> (Conrad C Lautenbacher <Conrad.C.Lautenbacher@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: Bob Hopkins <robert.hopkins@noaa.gov> (Bob Hopkins <robert.hopkins@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TEXT:
FYI

----- Original Message -----

Subject: EPW: INHOFE RESPONDS TO CLIMATE REPORT
Date: Tue, 25 Feb 2003 15:35:55 -0500
From: Michael_Catanzaro@epw.senate.gov (Michael Catanzaro)
To: twinter@eaglepub.com,

Page 1

003246

CEQ 004408

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stephen.sayle@dutkogroup.com, ssegal@bracepatt.com,
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sbrown@dutkogroup.com, robert.pollock@wsj.com, robert_traynham@src.senate.gov
(robert traynham), rlong@nma.org, ray.fitzgerald@mail.house.gov,
randy.randol@exxonmobil.com, ragon_gentry@inchofe.senate.gov,
public.policy@verizon.net, nschulz@techcentralstation.com,
nick.reid@heritage.org, mwhitenton@nam.org, mmckenna@dutkogroup.com,
mlewis@cei.org, mike@hardimanconsulting.com,
mebell@cei.org, larry.boggs@corporate.ge.com,
kurt.christensen@mail.house.gov, kmccoy@nam.org,
kim.strassel@wsj.com, john_peschke@rpc.senate.gov (john peschke),
joe@rpum.com, jmorgan9@ford.com, jmarks@nam.org,
jgizzi@eaglepub.com, jestes@who.eop.gov,
jack.victory@mail.house.gov, jack.belcher@mail.house.gov,
gkelly@kellypublic.com, george_o'connor@craig.senate.gov (george
o'connor), fmaisano@pcgpr.com, esteadman@celanese.com,
dridenour@nationalcenter.org, dperino@ceq.eop.gov,
doug.hey@mail.house.gov, denniss@prestongates.com,
debbie_s._fiddelke@ceq.eop.gov, danny_finnerty@inchofe.senate.gov,
dan.skopec@mail.house.gov, dallen@nrsc.org, cohen@lexingtoninstitute.org,
cmitchell@foleylaw.com, chris.fluhr@mail.house.gov, chorner@cei.org,
charli.coon@heritage.org, chad_bradley@inchofe.senate.gov (chad bradley),
bmoran@fabmac.com, blibro@mpower.com, bill.koetzle@mail.house.gov,
bholbrook@rnchq.org, aridenour@nationalcenter.org,
alynn@rnchq.org, susan_wheeler@crapo.senate.gov,
scott_milburn@voynovich.senate.gov, meredith_moseley@warner.senate.gov, marci
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jaredgyoung@yahoo.com, gary_hoitsma@inchofe.senate.gov,
ernie_blazar@bond.senate.gov, don_stewart@cornyn.senate.gov,
dick_wadhams@allard.senate.gov, chuck_kleeschulte@murkowski.senate.gov,
carrie_sloan@thomas.senate.gov, Genevieve_Erny@epw.senate.gov (Genevieve
Erny), Andrew_wheeler@epw.senate.gov (Andrew
wheeler), Michael_whatley@epw.senate.gov (Michael
whatley), Aloysius_Hogan@epw.senate.gov (Aloysius
Hogan), Marty_Hall@epw.senate.gov (Marty Hall)

FOR IMMEDIATE RELEASE:
Catanzaro

Contacts: Mike

202-224-5762
Jared Young
202-224-5762

February 25, 2003

INHOFE RESPONDS TO CLIMATE CHANGE REPORT

Washington, D.C.-Sen. James Inhofe (R-Okla.), chairman of the Senate Environment and Public Works Committee, gave a statement today on the National Research Council's report assessing the draft U.S. Climate Change Science Program Strategic Plan:

□ "The National Research Council report offers nothing new in terms of the significant uncertainties surrounding climate science, but does reinforce Congress's responsibility to ask tough questions about how climate research dollars are being spent. More quality and focused research is needed to find solutions to climate-related issues that may arise in the future.

□ "Hats off to the Bush Administration for taking the right approach to

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climate
change. Instead of pursuing economically disastrous policies such as
the Kyoto
Protocol, it is taking a prudent course by trying to strengthen our
limited
understanding of the underlying causes and impacts of climate change."

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 25-FEB-2003 18:59:37.00

SUBJECT: Re: First story "Bush Climate Plan Lacks Focus"

TO: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])

READ: UNKNOWN

TEXT:

you picked the line - right on the money

Phil Cooney

02/25/2003 06:57:56 PM

Record Type: Record

To: Dana M. Perino/CEQ/EOP@EOP, Kameron L. Onley/CEQ/EOP@EOP, Scott

McClellan/WHO/EOP@Exchange@EOP, Debbie S. Fiddelke/CEQ/EOP@EOP

cc: James.R.Mahoney@noaa.gov, Craig.montesano@noaa.gov,

Scott.Rayder@noaa.gov

Subject: First story "Bush Climate Plan Lacks Focus"

Science - Reuters

Scientists: Bush Climate Change Plan Lacks Focus
16 minutes ago Add Science - Reuters to My Yahoo!

WASHINGTON (Reuters) - The Bush administration's plan for research into global climate change lacks a "clear and consistent" focus to guide officials in setting U.S. policy, a National Academy of Sciences panel said on Tuesday,

The panel reviewed the draft plan at the request of the White House and described it as "a good start" that needed revisions to clarify its priorities and goals.

At first glance, members said, it appeared the administration's proposed budget for fiscal 2004, which begins Oct. 1, left funding for climate change research relatively unchanged -- despite important new initiatives that are proposed in the draft plan.

After withdrawing from the Kyoto Treaty on global warming, the Bush administration called for industry to make voluntary efforts to reduce emissions of so-called greenhouse gases linked to climate change. It launched the Climate Change Strategic Program, for research into the issue, last fall.

Scientists say use of fossil fuels, food production and land-use changes have released carbon dioxide,

methane, nitrous oxide and ozone gases at the same time the earth's surface has warmed slightly.

Climate change could result in melting of glaciers, a rise in sea levels, extended crop-growing seasons and changes in the geographic location of animals and plants.

"The draft plan lacks most of the basic elements of a strategic plan," the NAS panel wrote. It said there was no "guiding vision," set of executable goals, clear timetables, criteria for measuring progress or priorities for work.

A revised version of strategic plan for the Climate Change Strategic Program, which would facilitate research by 13 federal agencies, will be reviewed by the panel later this year.

"The revised strategic plan should articulate a clear, concise vision statement for the program in the context of national needs," the panel recommended. "The vision should be specific, ambitious and apply to the entire CCSP."

In their report, the NAS panel said the draft plan identified "some exciting new directions" for research and for "genuine overtures" to researchers and interested parties on how to improve the draft.

Some of the most important initiatives in the draft, the panel said, were a call for reliable methods for forecasting climate change and "cutting-edge" research into aerosols and the carbon cycle, to improve scientists' understanding

of climate change and variability.

Trustworthy climate forecasts would be of great value for policymakers at all levels, the panel said. As an example, it said the forecasts could be used by regional water managers or even by consumers deciding which appliances to buy.

Thomas Graedel, professor of industrial ecology at Yale University and chairman of the panel, said while research in the past tried to gauge how the climate was changing and its effects on nature, "future science must also focus on more applied research that can directly support decision-making."

"Research is especially needed to improve our understanding of the possible impacts of climate change on ecosystems and human society as well as options for responding to -- and reducing -- these effects."

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME:25-FEB-2003 19:32:53.00

SUBJECT:: Fwd: George Marshall Comments on NAS Report

TO:Kameran L. Onley (CN=Kameran L. Onley/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TEXT:

----- Forwarded by Dana M. Perino/CEQ/EOP on 02/25/2003
07:27 PM -----

Frank Maisano <fmaisano@PCGPR.COM>
02/25/2003 07:09:58 PM

Record Type: Record

To: Dana M. Perino/CEQ/EOP@EOP

CC:

Subject: Fwd: George Marshall Comments on NAS Report

Date: Tue, 25 Feb 2003 18:46:11 -0500
From: "Frank Maisano" <fmaisano@PCGPR.COM>
Subject: George Marshall Comments on NAS Report
To: "Frank Maisano" <fmaisano@PCGPR.COM>
MIME-version: 1.0
Content-type: multipart/mixed;
boundary="Boundary_(ID_MsGdRf/MZ61X2N189IWJ1w)"

Friends,

Here are comments from the George Marshall Institute, who commented extensively to the NAS...Many of their comments were incorporated into this report.

You may wish to contact Bill O'Keefe c. (202) 251-4625

Best,

Frank Maisano
c. (202) 297-1502

February 26, 2002

MARSHALL INSTITUTE COMMENDS NATIONAL ACADEMIES' CLIMATE SCIENCE
REVIEW:
Stresses Need to Prioritize Climate Research

Today's National Academies report, Planning Climate and Global Change Research, provides a valuable service by providing a constructive critique of the Administration's draft Climate Change Strategic Plan.

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"We join the Academy in commending the Administration for its outreach to the broader scientific community and agree that these efforts indicate a strong interest in developing a plan that is responsive to national needs," Marshall Institute President William O'Keefe said.

The George Marshall Institute also examined the Administration's draft plan in detail. Based on comments submitted to the Department of Commerce in mid-January, Climate Change Science: Marshall Institute's Review of the Draft Climate Change Science Program Strategic Plan, the Institute lays out its recommendations for improving the draft Strategic Plan (available at <http://www.marshall.org>).

The Academy comments also reinforce those made by a majority of the participants at the workshop convened last December to engage stakeholders in the planning process.

In convening that workshop, Assistant Secretary Mahoney provided a valuable context by indicating that the draft had been designed to provoke discussion and comment. His measure of success for the effort was the extent of change made to the draft. By omitting this context, the Academy risks a widespread misunderstanding of its review and the Administration's efforts.

In the end, the Academy report, as well as others from the scientific community, reaffirm a few basic facts:

- * Our current state of knowledge is inadequate for distinguishing human impacts from natural variability,
- * Progress in improving our state of knowledge is tied to a commitment and funding to improve our observational data system, and
- * For models to be more useful, they must be based more on confirmed scientific facts and less on unvalidated hypotheses.

The George Marshall Institute (GMI) is a 501(c)(3) non-profit organization founded in 1984 to encourage the use of sound science in making public policy. Decisions and conclusions about many public policy matters are shaped by advances in science and technology. For that reason, unbiased and scientifically accurate assessments of the significance of these advances for policy are critical.

George Marshall Institute
1625 K St, NW
Suite 1050
Washington, D.C. 20005
202/296-9655
info@marshall.org

- nas2-26rpt.pdf

===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert NSREOP0102:[ATTACH.D54]SREOP01300E6J8B.001 to ASCII,
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===== END ATTACHMENT 1 =====

0256.0001

**Key Facts and Quotes About the National Research Council Report
"Planning Climate and Global Change Research"
February 26, 2003**

1. The National Research Council's report praises the Administration for "a strong interest on the part of the Climate Change Science Program (CCSP) in developing a plan that is consistent with current scientific thinking and is responsive to the nation's needs for information on climate and associated global changes"

2. NRC stated that the Administration's Draft Strategic Plan "identifies some exciting new directions" for climate change science programs in the federal government, while making "genuine overtures to researchers and the broader stakeholder community to gain feedback on the draft strategic plan and how to improve it."

- *Overall conclusion:* "In general, the draft plan provides a solid foundation for the CCSP. With suitable revisions, the plan could articulate an explicit and forward-looking vision for the CCSP and clearly identifiable pathways to successful implementation."
- *On the Draft Strategic Plan's utility:* "The CCRI portion of the plan introduces an admirable emphasis on the need for science to address national needs, including support for those in the public and private sectors whose decisions are affected by climate change and variability."
- *On cutting-edge science:* ". . . the draft plan identifies many of the cutting-edge scientific research activities that are necessary to improve understanding of the Earth system."
- *On the need for better observing systems:* "The call for greatly improved observational capabilities reflects a well-recognized priority for increasing understanding of climate and associated global changes."

3. The NRC also made some thoughtful recommendations for improvements to the Draft Strategic Plan: (1) clarify visions and goals of the CCSP and CCRI; (2) improve its treatment of program management; (3) fill key information needs; (4) enhance efforts to support decision making; and (5) set the stage for implementation.

4. The Administration welcomes these recommendations and believes they will serve to enhance its efforts to conduct an open, transparent, and credible climate science program. It should be emphasized that the Draft Strategic Plan is just that: a draft – open to constructive comments and with room for improvement. The NRC report is not the endpoint – but it is a significant step in the process that will culminate in the Revised Strategic Plan, which will be issued in April 2003.

5. This report was requested by Dr. James Mahoney on behalf of the Administration as part of the Climate Change Research Initiative. The Administration asked NRC to give the Draft Plan a thorough looking-over, and find ways in which it could be improved.

6. Now that the Administration is well along in the important task of framing the key questions to proceed with a science program, the NRC's thoughtful critiques and recommendations will further refine the process of producing a plan that serves the best interests of the nation.

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Stephanie.Harrington@noaa.gov (Stephanie.Harrington@noaa.gov [UNKNOWN])

CREATION DATE/TIME:26-FEB-2003 19:33:44.00

SUBJECT:: DRAFT Press Release - PLEASE REVIEW

TO:stephanie.harrington@noaa.gov (stephanie.harrington@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:rbirk@hq.nasa.gov (rbirk@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:"Patel-weynandTO@state.gov" <Patel-weynandTO@state.gov> (
"Patel-weynandTO@state.gov" <Patel-weynandTO@state.gov> [UNKNOWN])
READ:UNKNOWN

CC:'Debbie Payne' <Debbie.Payne@noaa.gov> ('Debbie Payne' <Debbie.Payne@noaa.gov> [UNKNOWN])
READ:UNKNOWN

CC:"talleyt@state.gov" <talleyt@state.gov> ("talleyt@state.gov"
<talleyt@state.gov> [UNKNOWN])
READ:UNKNOWN

CC:"sambrose@hq.nasa.gov" <sambrose@hq.nasa.gov> ("sambrose@hq.nasa.gov"
<sambrose@hq.nasa.gov> [UNKNOWN])
READ:UNKNOWN

CC:'Robert Marlay' <Robert.Marlay@hq.doe.gov> ('Robert Marlay'
<Robert.Marlay@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

CC:'mgarcia' <mgarcia@usgs.gov> ('mgarcia' <mgarcia@usgs.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Jerry.Elwood@science.doe.gov" <Jerry.Elwood@science.doe.gov> (
"Jerry.Elwood@science.doe.gov" <Jerry.Elwood@science.doe.gov> [UNKNOWN])
READ:UNKNOWN

CC:"kbarrett@usaid.gov" <kbarrett@usaid.gov> ("kbarrett@usaid.gov"
<kbarrett@usaid.gov> [UNKNOWN])
READ:UNKNOWN

CC:'tspence' <tspence@nsf.gov> ('tspence' <tspence@nsf.gov> [UNKNOWN])
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CC:"James.R.Mahoney@noaa.gov" <James.R.Mahoney@noaa.gov> (
"James.R.Mahoney@noaa.gov" <James.R.Mahoney@noaa.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Margaret.R.Mccalla@noaa.gov" <Margaret.R.Mccalla@noaa.gov> (
"Margaret.R.Mccalla@noaa.gov" <Margaret.R.Mccalla@noaa.gov> [UNKNOWN])
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CC:"gant@niehs.nih.gov" <gant@niehs.nih.gov> ("gant@niehs.nih.gov"
<gant@niehs.nih.gov> [UNKNOWN])
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<EmSimmons@usaid.gov> [UNKNOWN])
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READ:UNKNOWN

CC: Erin Wuchte (CN=Erin Wuchte/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

CC: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC: "'ari.patrinos@science.doe.gov'" <ari.patrinos@science.doe.gov> ("'ari.patrinos@science.doe.gov'" <ari.patrinos@science.doe.gov> [UNKNOWN])
READ:UNKNOWN

CC: "'watsonhl@state.gov'" <watsonhl@state.gov> ("'watsonhl@state.gov'" <watsonhl@state.gov> [UNKNOWN])
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CC: "'neale@serc.si.edu'" <neale@serc.si.edu> ("'neale@serc.si.edu'" <neale@serc.si.edu> [UNKNOWN])
READ:UNKNOWN

CC: "'white Deborah J.'" <djwhite@nsf.gov> ("'white Deborah J.'" <djwhite@nsf.gov> [UNKNOWN])
READ:UNKNOWN

CC: 'Holmes Kathy' <Kathy.Holmes@science.doe.gov> ('Holmes Kathy' <Kathy.Holmes@science.doe.gov> [UNKNOWN])
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CC: "'turekianvc@state.gov'" <turekianvc@state.gov> ("'turekianvc@state.gov'" <turekianvc@state.gov> [UNKNOWN])
READ:UNKNOWN

CC: Paul T. Anastas (CN=Paul T. Anastas/OU=OSTP/O=EOP@EOP [OSTP])
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CC: "'david.goodrich@noaa.gov'" <david.goodrich@noaa.gov> ("'david.goodrich@noaa.gov'" <david.goodrich@noaa.gov> [UNKNOWN])
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CC: 'Gorsevski Virginia' <VGorsevski@usaid.gov> ('Gorsevski Virginia' <VGorsevski@usaid.gov> [UNKNOWN])
READ:UNKNOWN

CC: "'scheraga.joel'" <scheraga.joel@epa.gov> ("'scheraga.joel'" <scheraga.joel@epa.gov> [UNKNOWN])
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CC: "'hratch.semerjian@nist.gov'" <hratch.semerjian@nist.gov> ("'hratch.semerjian@nist.gov'" <hratch.semerjian@nist.gov> [UNKNOWN])
READ:UNKNOWN

CC: "'Jack.Kaye@hq.nasa.gov'" <Jack.Kaye@hq.nasa.gov> ("'Jack.Kaye@hq.nasa.gov'" <Jack.Kaye@hq.nasa.gov> [UNKNOWN])
READ:UNKNOWN

CC: "'vicki.horton@noaa.gov'" <vicki.horton@noaa.gov> ("'vicki.horton@noaa.gov'" <vicki.horton@noaa.gov> [UNKNOWN])
READ:UNKNOWN

CC: "'mleinen@nsf.gov'" <mleinen@nsf.gov> ("'mleinen@nsf.gov'" <mleinen@nsf.gov> [UNKNOWN])
READ:UNKNOWN

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Stephanie Harrington <Stephanie.Harrington@noaa.gov> (Stephanie Harrington <Stephanie.Harrington@noaa.gov> [UNKNOWN])

CREATION DATE/TIME:28-FEB-2003 14:59:56.00

SUBJECT:: FYI - NRC response to The Guardian article on Draft CCSP Strategic Plan

TO:Margaret.R.Mccalla@noaa.gov (Margaret.R.Mccalla@noaa.gov [UNKNOWN])
READ:UNKNOWN

TO:gant@niehs.nih.gov (gant@niehs.nih.gov [UNKNOWN])
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TO:EmSimmons@usaid.gov (EmSimmons@usaid.gov [UNKNOWN])
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TO:andrewj@onr.navy.mil (andrewj@onr.navy.mil [UNKNOWN])
READ:UNKNOWN

TO:Erin wuchte (CN=Erin wuchte/OU=OMB/O=EOP@EOP [OMB])
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TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
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TO:mmoore@osophs.dhhs.gov (mmoore@osophs.dhhs.gov [CEA])
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TO:gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])
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TO:cgroat@usgs.gov (cgroat@usgs.gov [UNKNOWN])
READ:UNKNOWN

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READ:UNKNOWN

CC:djwhite@nsf.gov (djwhite@nsf.gov [UNKNOWN])
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READ:UNKNOWN

CC:sambrose@hq.nasa.gov (sambrose@hq.nasa.gov [UNKNOWN])
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CC:VGorsevski@usaid.gov (VGorsevski@usaid.gov [UNKNOWN])
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CC:scheraga.joel@epa.gov (scheraga.joel@epa.gov [UNKNOWN])
READ:UNKNOWN

CC:hratch.semerjian@nist.gov (hratch.semerjian@nist.gov [UNKNOWN])
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CC:vicki.horton@noaa.gov (vicki.horton@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:rbirk@hq.nasa.gov (rbirk@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:Patel-weynandTO@state.gov (Patel-weynandTO@state.gov [UNKNOWN])
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CC:Debbie.Payne@noaa.gov (Debbie.Payne@noaa.gov [UNKNOWN])
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CC:kbarrett@usaid.gov (kbarrett@usaid.gov [UNKNOWN])
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CC:tsponce@nsf.gov (tsponce@nsf.gov [UNKNOWN])
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CC:James.R.Mahoney@noaa.gov (James.R.Mahoney@noaa.gov [UNKNOWN])
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TEXT:

On behalf of Dr. Mahoney, I am forwarding you the NRC response to the
February 27, 2003, article in

0302_f_o6cae003_ceq.txt

The Guardian (UK) on the recently released NRC report on the Discussion Draft Strategic Plan on the U.S. Climate Change Science Program. Please see the attached pdf file for the NRC response.

The original article can be found at the following URL or in the text below:

<http://www.guardian.co.uk/climatechange/story/0,12374,903609,00.html>

Please let me know if you have any questions,
Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944

Advisers tell Bush climate plan is useless

Strategy 'lacks vision,' goals, timetable and criteria'

Oliver Burkeman in Washington
Thursday February 27, 2003
The Guardian

George Bush's strategy on global warming suffered a setback yesterday when a panel of scientists convened at the request of the white House condemned it as lacking vision, and wasting time and money on research questions that were resolved years ago.

Mr Bush's plan, introduced after the US backed out of the Kyoto protocol, replaces that treaty's call for mandatory limits on greenhouse gas emissions with a decade-long programme of research to determine the scale of the problem.

But the 17 environmental experts, assembled by the National Academy of Sciences at the president's request, said in their report that the president's strategy "lacks most of the basic elements of a strategic plan: a guiding vision, executable goals, clear timetables and criteria for measuring progress", and misses the opportunity to cooperate more with other countries on research.

"I've been doing ecosystems science for 30 years, and we know what we know and what we don't know," William Schlesinger, a panel member, told the Guardian. "Rather than focusing on the things we don't know, it's almost as if parts of the plan were written by people who are totally unfamiliar with where ecosystems science is coming from.

"They say we ought to be monitoring methane in remote regions," said Dr Schlesinger, the dean of Duke University's Nicholas School of the Environment and Earth Sciences in Durham, North Carolina. "Well, we've been monitoring some of these things for 30 years, and there's no question that the levels are rising."

The Bush plan also urges, for example, more research on how carbon emissions are affected by forest fires, a question largely seen as resolved within the academy.

"They didn't set the hard priorities," said Michael Prather, an earth scientist from the University of California at Irvine and a panel member. "From the scientists' point of view, we have a pretty good idea of what is happening."

The experts also call for "greatly increased" spending on addressing climate change, far above the \$1.7bn per year earmarked. They concede that the plan is "a solid foundation", going further towards formulating a strategy on global warming research - as required by a 1990 act of Congress - than either the first President Bush or Bill Clinton.

James Mahoney, director of the government's climate change science programme, which is charged with executing the plan, said he welcomed the panel's criticisms. "Nobody ever undertook to do something like this before. There are certainly areas where we need to improve," he said. "But we're in a process where we pushed to very quickly turn around a battleship, and we've never had a plan before."

But the scientists' findings may cause concern in the administration in the few weeks of the consultation period that remain, not least because the panel included experts from corporations including BP and Honeywell.

Mr Bush has been accused of claiming that more research is needed in order to stall moves towards limiting US greenhouse gas emissions. Environmental groups accuse the oil company Exxon Mobil of leading a campaign in the US to discredit scientific findings suggesting that the dangers of global warming are grave.

"There's no question that if you claim that not much is known, even if it is, then you delay the time at which you can say, OK, the research is unequivocal and we need to do something about the problem," Dr Schlesinger said. "It's not very far beneath the surface that there's an element of not taking any action here."

- Guardian Letter to the Editor 02-28-03.pdf===== ATTACHMENT 1

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ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

Unable to convert NSREOP0103:[ATTACH.D80]SREOP01300EAC60.001 to ASCII,
The following is a HEX DUMP:

===== END ATTACHMENT 1 =====

0302... 0001

Letter to the Editor, London Guardian (UK):

Oliver Burkeman's article "Advisers tell Bush climate plan is useless" (February 27) discusses a report released by the National Research Council, the operating arm of the National Academy of Sciences and the National Academy of Engineering, on the draft U.S. Climate Change Science Program (CCSP) strategic plan.

This article misrepresented the report's conclusions in several important ways. First, its headline is not at all consistent with the committee's overall assessment of the draft plan. The committee concluded, "In general, the draft plan provides a solid foundation for the CCSP." Although the report called on CCSP to make substantial revisions, it stated that the draft plan "represents a good start to the process" and "clearly builds upon the substantial and largely successful research programs of the last decade."

Second, the NRC report did not state that the draft plan wastes "time and money on research questions that were resolved years ago." In fact, the committee found that it "identifies many of the cutting-edge scientific research activities that are necessary to improve understanding of the Earth system."

This committee worked hard to provide constructive advice to the CCSP as it takes on the challenging task of revising its draft strategic plan. In so doing, it identified the plan's strengths as well as many opportunities for improvement. Your article would have been more informative to your readers if it had accurately reflected the consensus views of our committee.

Respectfully,

E. William Colglazier
Executive Officer
U. S. National Academy of Sciences and National Research Council

003251

CEQ 004429

0304_f_c5mae003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:"Moss, Richard H" <Richard.Moss@pn1.gov> ("Moss, Richard H"
<Richard.Moss@pn1.gov> [UNKNOWN])

CREATION DATE/TIME:28-FEB-2003 17:45:23.00

SUBJECT:: Record of conclusions and follow-up actions from second day of lead
authors' retreat

TO:wgcc@usgcrp.gov (wgcc@usgcrp.gov [UNKNOWN])
READ:UNKNOWN

CC:david.conover@hq.doe.gov (david.conover@hq.doe.gov [UNKNOWN])
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CC:djwhite@nsf.gov (djwhite@nsf.gov [UNKNOWN])
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CC:Kathy.Holmes@science.doe.gov (Kathy.Holmes@science.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:turekianvc@state.gov (turekianvc@state.gov [UNKNOWN])
READ:UNKNOWN

CC:sambrose@hq.nasa.gov (sambrose@hq.nasa.gov [UNKNOWN])
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CC:Robert.Marlay@hq.doe.gov (Robert.Marlay@hq.doe.gov [UNKNOWN])
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CC:Margot.Anderson@hq.doe.gov (Margot.Anderson@hq.doe.gov [UNKNOWN])
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CC:David Halpern (CN=David Halpern/OU=OSTP/O=EOP@EOP [OSTP])
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CC:mary.glackin@noaa.gov (mary.glackin@noaa.gov [UNKNOWN])
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CC:linda.lawson@ost.dot.gov (linda.lawson@ost.dot.gov [UNKNOWN])
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CC:slimak.michael@epa.gov (slimak.michael@epa.gov [UNKNOWN])
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CC:m Moore@osophs.dhhs.gov (m Moore@osophs.dhhs.gov [CEA])
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CC:cgroat@usgs.gov (cgroat@usgs.gov [UNKNOWN])
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CC:whohenst@OCE.USDA.gov (whohenst@OCE.USDA.gov [UNKNOWN])
READ:UNKNOWN

TEXT:

TO: Working Group Co-Chairs/Lead Authors

FROM: Climate Change Science Program Office

RE: Record of conclusions and follow-up actions from
second day of lead authors, retreat

DATE: 28 February 2003

CC: CCSP/SGCR Principals

ÿ

Thank you for participating in the lead authors, retreat on the 24th and 26th of February. Special thanks are due to Tom Spence, Rosa Knox, and NSF Geosciences for hosting us. Conclusions and follow-up actions are summarized in the attached meeting summary <Retreat_Conclusions_28Feb03.pdf> and supplement the recommendations made in the 4 February 2003 guidance memo. If you have questions or a different recollection of any of the conclusions, please contact me.

ÿ

Note that we are suggesting that the meeting scheduled for 7 March to review the NRC comments be dropped, since we have already had a preliminary review of the NRC comments on Wednesday at the retreat. In its place we propose to hold a teleconference (but only if it is useful to WG co-chairs and lead authors*see meeting summary) to discuss &with-in chapter 8 revisions. We are also adding an afternoon meeting on 12 March for final discussion of a number of cross-cutting issues (this could include further discussion of the NRC report if warranted). This is also described in the summary.

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Also attached to this email you will find a series of files that you might consider forwarding to your respective writing teams along with your own insights as you revise your draft chapters. If you have any problems with the attachments, please contact Ms. Sandy MacCracken.

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The files are referenced in the conclusions/follow-up actions memo and include:

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<NRCreviewFeb2003.pdf> (electronic version of the NRC report)

<Annotation_Directions.doc> (guidelines for noting responses to comments)

<StratPlan_GraphicsSpecs.doc> (graphics specifications)

<WG_ContactInfo.doc> (contact information for the writing

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:John Graham (CN=John Graham/OU=OMB/O=EOP [OMB])

CREATION DATE/TIME:28-FEB-2003 19:30:07.00

SUBJECT:: Climate Change Data Quality Petition, FYI, per Sam Kazman

TO:Edmond Toy (CN=Edmond Toy/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

TO:Paul R. Noe (CN=Paul R. Noe/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

CC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC:James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TEXT:
Paul and Edmond:

Please prepare a briefing for me on this one.
----- Forwarded by John Graham/OMB/EOP on 02/28/2003
07:24 PM -----

Chris Horner <chorner@cei.org>
02/28/2003 01:10:07 PM
Record Type: Record

To: John Graham/OMB/EOP@EOP
cc:
Subject: Climate Change Data Quality Petition, FYI, per Sam Kazman

John,

Per your discussion with my colleague Sam Kazman, I copy you on an FDQA petition we recently filed with OSTP seeking to cease dissemination of the National Assessment on Climate Change (NACC). Similarly, we filed related requests with NOAA (NACC) and EPA for its Climate Action Report (which incorporates NACC data and conclusions as the basis for its Chapter 6).

If you agree there is a role for OIRA in addressing this, that would be opportune as continued dissemination of this material is (rightly) causing strain between the administration and Sen. Inhofe and Rep.s Knollenberg and Emerson, given that disseminating NACC in any form as government policy or positions is in violation of an agreement we collectively reached to resolve litigation over NACC's unlawful production, not to mention FDQA. <<FDQA CAR OSTP Petition.pdf>>

Christopher C. Horner
Senior Fellow, Competitive Enterprise Institute
Counsel, Cooler Heads Coalition
1001 Connecticut Avenue, NW
Suite 1250



COMPETITIVE ENTERPRISE INSTITUTE

20 February 2003

Director of the Office of Science and Technology Policy
Executive Office of the President
Eisenhower Executive Office Building
1650 Pennsylvania Avenue, NW
Washington, DC 20502.

Re: **Initial Request for Correction of Information:**
Petition to Cease Dissemination of the National Assessment on Climate Change,
Pursuant to the Federal Data Quality Act

Introduction

This document follows and incorporates by reference: 1) the information presented the United States District Court for the District of Columbia in *Competitive Enterprise Institute (CEI), Inhofe, et al. v. Bush* (DC DC CV 00-02383), the complaint of which is presently withdrawn without prejudice expressly on the basis of OSTP assurances that the National Assessment does not represent a product of the federal government; 2) correspondence sent by CEI to Assistant Secretary of Commerce Dr. James R. Mahoney and Under Secretary of Commerce Vice Admiral Conrad C. Lautenbacher, Jr (18 October 2002) requesting that the US Global Change Research Change Project's (USGCRP) National Assessment Synthesis Team undergo housecleaning to remove members responsible for the unlawfully produced, incomplete and FDQA-noncompliant National Assessment on Climate Change; and 3) CEI's Comments on NOAA/USCCSP's "Strategic Plan for the Climate Science Program" (17 January 2003)(the latter two are attached).

Because "[t]he Office of Science and Technology Policy (OSTP) and the Office of Management and Budget (OMB) provide oversight [of USGCRP] on behalf of the Executive Office of the President" (<http://www.usgcrp.gov/usgcrp/GCRPINFO.html>), OSTP retains responsibility for

ensuring the compliance of USGCRP data, particularly the “National Assessment on Climate Change”, with FDQA requirements. “One of the major activities for the USGCRP during the last several years has been the U.S. National Assessment of the Potential Consequences of Climate Variability and Change. Assessment of the potential consequences of global change was mandate [sic] by Congress in the authorizing legislation of the USGCRP. OSTP requested the USGCRP to undertake this assessment, and played a key role in defining the assessment process, which included a series of regional workshops, USGCRP sponsorship of regional and sector vulnerability analyses, and creation of a National Synthesis Report, which will be published in late 2000” (http://www.ostp.gov/Environment/html/env_projBAK.html)(see also, e.g., “NSCTC Annual Report”, at <http://www.ostp.gov/NSTC/html/annualrpt98.html>).

Pursuant to the justification presented in the cited litigation and attachments, and incorporated by reference in this Request, the Competitive Enterprise Institute requests correction of information, under Section 515 of Public Law 106-554, seeking OSTP comply with the FDQA by immediately ceasing dissemination of any form of the flawed data specifically described herein, and all conclusions or assertions based upon same, which is most effectively obtained by ceasing dissemination of the document formally if inaccurately styled as meeting the requirements as a first statutorily required “Climate Change Impacts in the United States: The Potential Consequences of Climate Variability and Change”, or National Assessment (NACC).

CEI is an Affected Person. As the lead plaintiff in *CEI, Inhofe, et al. v. Clinton* (DC DC CV 00-02383), litigation against the President in his capacity as Chair of the NSTC, and Dr. Neal Lane in his capacity as Director of the White House’s Office of Science and Technology Policy, based on that product’s unlawful production, CEI is an Affected Person.

Further, CEI is an active participant in the domestic debate over United States “climate change” policies addressing regulatory and related policies of the United States government and their impact on its citizens, including *inter alia* an active practice writing and publishing (research, opinion, books, monographs, and biweekly “Cooler Heads” newsletter), advocating and as warranted litigating on policies regarding the economics, science and policies surrounding the theory of catastrophic anthropogenic global warming (“climate change”), which is the subject of the Synthesized Product at issue in the Request.

OSTP’s Dissemination of the USGCRP Product “NACC” is Covered by FDQA. As clearly manifested in great detail, *infra*, the National Assessment Synthesis Team is chartered pursuant to if demonstrably out of compliance with the Federal Advisory Committee Act (indeed, in federal litigation pleadings, OSTP’s attorneys mustered only arguments toward possible compliance with the irrelevant “Sunshine Act” in defense of this noncompliance). This, however, does not mitigate OSTP’s responsibility for its USGCRP endeavors, and dissemination of the National Assessment via the “.gov” internet domain not available to non-federal entities such as FACA committees even when operating in compliance with the law. The National Assessment is the product of USGCRP, disseminated via the federal domain “usgcrp.gov”. As such, dissemination is traceable to OSTP, which remains responsible for the content pursuant to FDQA.

CEI's Request for Correction is Timely. OSTP's FDQA "Final Guidelines for Ensuring the Quality of Disseminated Information" are dated October 2002. This request for correction of the numerous flaws in the massive document, as specifically detailed herein is therefore timely.

Summary

Consistent with the record that CEI has established through litigation and formal comments to numerous federal agencies involved with the OSTP's effort to develop the National Assessment on Climate Change during their formulation of FDQA Guidelines, we request "timely correction" of NACC's fatal data flaws which, which upon review appears to be only obtainable by ceasing dissemination of the entirety.

The following represents "the information source" at issue. NACC was originally disseminated electronically and in print December 2000, continuing to present, at <http://www.usgcrp.gov/usgcrp/nacc/default.htm>. Supervision of and the relevant USGCRP product remains the responsibility of OSTP as detailed herein. The information is also specifically described herein as incorrect for its failure to meet the data quality requirements of "objectivity" (whether the disseminated information is presented in an *accurate, clear, complete* and *unbiased* manner and is as a matter of substance *accurate, reliable* and *unbiased*), and "utility" (the *usefulness* of the information to the *intended users* (per the US Global Change Act of 1990, these are Congress and the Executive Branch).

The White House Office of Management and Budget's (OMB) Interim Final Guidelines for agency compliance with FDQA requirements (66 FR 49718), finalized by OMB's January 3, 2002 Final Guidance (67 FR 369), were expressly "government-wide" (see FDQA Section 515(b)(1)). We continue our proceeding under OSTP's now-final Guidelines, and particularly OSTP's "*Final Guidelines for Ensuring the Quality of Disseminated Information*", to the extent these Guidelines further and are not in conflict with OMB's organic government-wide guidelines and/or FDQA.

Further, as the statutorily designated steering document for policymaking – despite that the particular document at issue admits in its own text that it fails to complete the statutory mission required to qualify as a "National Assessment," and was disavowed by the White House Office of Science and Technology Policy in order to resolve litigation also brought by, *inter alia*, CEI -- NACC qualifies as "influential scientific or statistical information" for purposes of FDQA. Therefore it must meet a "reproducibility" standard, setting forth transparency regarding data and methods of analysis, "as a quality standard above and beyond some peer review quality standards."

This invokes NACC's inappropriate use of and reliance upon computer models and data that upon scrutiny are demonstrably meaningless. Further, and as well documented in federal litigation pleadings, in developing the published version of NACC the USGCRP also admittedly failed to perform the necessary science underlying regional and sectoral analyses (that Congress

contemporaneously notified USGCRP was a condition precedent to the release of even a draft National Assessment, as the absence of such yields the absence of sound science). FDQA ratifies those objections, and is violated by continued dissemination of this product by any federal agency.

An extensive record obtained through the Freedom of Information Act (FOIA) provides additional evidence requiring a prohibition on further NACC dissemination. This record exposes that the purported internal “peer review” of the draft NACC did not in fact occur, and also ratifies the inappropriate use of computer models, detailed herein. As the obtained documents demonstrate, commenting parties expressly informed USGCRP that they were rushed and given wildly inadequate time for substantive review or comment. USGCRP published and continues to disseminate the product nonetheless, as do all agencies such as OSTP which reference, cite, link or otherwise disseminate NACC.

All of these failings ensure that dissemination of NACC violates FDQA’s requirement, manifested in OMB’s Guidelines and as necessarily manifested by OSTP’s final guidelines, that data disseminated by Federal Agencies meet standards of quality as measured by specific tests for objectivity, utility and integrity.

FDQA prohibits – and therefore, OSTP must cease -- dissemination of NACC as the sole feasible “correction” given the errors’ endemic nature due to that document’s rampant violations.

Pursuant to the above-cited documentation and the following, CEI requests that OSTP immediately comply with FDQA and cease dissemination of the National Assessment on Climate Change in whole or part and in any form including any product relying on NACC.

Facts

I. FDQA Coverage of the NACC

However and by whatever cooperative effort of several government agencies, NACC as originally produced and/or disseminated is inescapably covered by FDQA when disseminated by a Federal Agency. This is particularly true given that no permissible interpretation of FDQA would permit evasion of its requirements, particularly regarding such a massive taxpayer expenditure, on the basis that it was a collaborative effort of numerous covered agencies. It is noteworthy that, whatever the status of the governmental cooperative producing NACC, as directed by the Executive Office of the President (EOP) and specifically OSTP, the United States Global Change Research Program (USGCRP), as putative producer of the National Assessment on Climate Change nonetheless is subject to the Federal Data Quality Act (FDQA). FDQA covers the same entities – and therefore, products -- as the Paperwork Reduction Act (PWRA)(44 U.S.C. Sections 3501 *et seq.*; see esp. 44 U.S.C. 3502(1)).

By statute the President serves as Chairman of the National Science and Technology Council (“NSTC”), operating under the White House OSTP, and which has under its authority the

Committee on Environment and Natural Resources (“CENR”) (15 U.S.C. 2932 (originally “Committee on Earth and Environmental Sciences”)). All are therefore EOP entities, subject to PWRA, thus FDQA.

Per 15 U.S.C. 2934 the President, as Chairman of the Council, shall develop and implement through CENR a US Global Change Research Program. The Program shall advise the President and Congress, through the NACC, on relevant considerations for climate policy. Though the composite USGCRP is an “interagency” effort staffed in great part by seconded employees from federal agencies, it remains under the direction of the President, such direction which has been delegated to OSTP, and is therefore a “covered agency” pursuant to 44 U.S.C. 3502(1).

Collectively and pursuant to statutory authority, under the direction of OSTP the collaborative effort USGCRP directed an effort statutorily dedicated in part to studying the state of the science and its uncertainties surrounding the theory of “global warming” or “climate change,” producing a National Assessment on Climate Change. Though originally produced prior to FDQA, the data asserted by the NACC (issued in final in December 2000), current or continued dissemination is subject to the requirements of the Federal Data Quality Act. Such an argument of “pre-existing study” is not available as regards any disseminated document under FDQA.

II. Development of NACC

The Assessment was produced as follows:

1. Pursuant to and/or under the auspices of the Global Change Research Act of 1990, 15 U.S.C. 2921, *et seq.*, USGCRP is assigned the responsibility of producing a scientific assessment, particularly that which is at issue in this Petition, as follows:

“On a periodic basis (not less frequently than every 4 years), the Council, through the Committee, shall prepare and submit to the President and the Congress an assessment which –

- (1) integrates, evaluates, and interprets the findings of the [USGCR] Program and discusses the scientific uncertainties associated with such findings;
 - (2) analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; and
 - (3) analyzes current trends in global change both human-induced (sic) and natural, and projects major trends for the subsequent 25 to 100 years.” (15 U.S.C. 2934).
2. The document at issue in this Petition, the “First National Assessment on Climate Change,” disseminates data rising to the requisite FDQA levels of “quality”, as described herein.

3. USGCRP's surge to release a flawed, partial, and partially unauthorized report came despite requests of lawmakers and outside interests concerned with the issues at hand to withhold releasing any such document lacking particular required scientific foundations, in violation of several laws and public policy.

III. The Assessment violates the requirements of the FDQA in the following ways:

1. NACC Relies Upon and Promotes Improper Use of Computer Model Data

For the following reasons, NACC violates FDQA's "objectivity" and "utility" requirements. For these same reasons, as "influential scientific or statistical information", NACC also fails FDQA's "reproducibility" standard, establishing transparency requirements for data and methods of analysis, "a quality standard above and beyond some peer review quality standards."

First, consider excerpts from the review of NACC by Patrick Michaels, Professor of Environmental Sciences at University of Virginia, dated and submitted to USGCRP August 11, 2000, detailing the above-noted concerns placing the NACC in violation of FDQA. Where appropriate, additional *italicized explanatory text* is included. **USGCRP made no apparent alterations of the original text in response to these comments, therefore the comments apply to NACC as disseminated.**

"August 11, 2000...

"The essential problem with the USNA [*elsewhere cited in this Petition as the NACC*] is that it is based largely on two climate models, neither one of which, when compared with the 10-year smoothed behavior of the lower 48 states (a very lenient comparison), reduces the residual variance below the raw variance of the data. The one that generates the most lurid warming scenarios—the Canadian Climate Centre (CCC) Model—produces much larger errors than are inherent in the natural noise of the data. That is a simple test of whether or not a model is valid...and both of those models fail. All implied effects, including the large temperature rise, are therefore based upon a multiple scientific failure. The USNA's continued use of those models and that approach is a willful choice to disregard the most fundamental of scientific rules. (And that they did not find and eliminate such an egregious error is testimony to grave bias). For that reason alone, the USNA should be withdrawn from the public sphere until it becomes scientifically based."

Explanatory text: *The basic rule of science is that hypotheses must be verified by observed data before they can be regarded as facts. Science that does not do this is "junk science", and at minimum is precisely what the FDQA is designed to bar from the policymaking process.*

The two climate models used in the NACC make predictions of U.S. climate change based upon human alterations of the atmosphere. Those alterations have been going on for well over 100 years.

Do the changes those models “predicted” for U.S. climate in the last century resemble what actually occurred?

This can be determined by comparison of observed U.S. annual temperature departures from the 20th century average with those generated by both of these models. It is traditional to use moving averages of the data to smooth out year-to-year changes that cannot be anticipated by any climate model. This review used 10-year running averages to minimize interannual noise.

The predicted-minus-observed values for both models versus were then compared to the result that would obtain if one simply predicted the average temperature for the 20th century from year to year. In fact, both models did worse than that base case. Statistically speaking, that means that both models perform worse for the last 100 years than a table of random numbers applied to ten-year running mean U.S. temperatures.

There was no discernible alteration of the NACC text in response to this fatal flaw. However, the NACC Synthesis Team, co-chaired by Thomas Karl, Director of the National Climatic Data Center, took the result so seriously that they commissioned an independent replication of this test, only more inclusive, using 1-year, 5-year, 10-year and 25-year running means of the U.S. annual temperature. This analysis verified that in fact both models performed no better than a table of random numbers applied to the U.S. Climate Data. Mr. Karl was kind enough to send the results to this reviewer.

“...the problem of model selection. As shown in Figure 9.3 of the Third Assessment of the United Nations Intergovernmental Panel on Climate Change, the behavior of virtually every General Circulation Climate model (GCM) is the production of a linear warming, despite assumptions of exponential increases in greenhouse forcing. In fact, only one (out of, by my count, 26) GCMs produces a substantially exponential warming—the CCC model [one of the two used in the NACC]. Others may bend up a little, though not substantially, in the policy-relevant time frame. The USNA specifically chose the outlier with regard to the mathematical form of the output. No graduate student would be allowed to submit a thesis to his or her committee with such arrogant bias, and no national committee should be allowed to submit such a report to the American people.

Even worse, the CCC and Hadley data were decadal smoothed and then (!) subject to a parabolic fit, as the caption for the USNA’s Figure 6 makes clear. That makes the CCC even appear warmer because of the very high last decadal average.

One of the two models chosen for use in the USNA, the Canadian Climate Center (CCC) model, predicts the most extreme temperature and precipitation changes of all the models considered for inclusion. The CCC model forecasts the average temperature in the United States to rise 8.1°F (4.5°C) by the year 2100, more than twice the rise of 3.6°F (2.0°C) forecast by the U.K. model (the second model used in the USNA). Compare this with what has actually occurred during the past century. The CCC model predicted a warming of 2.7°F (1.5°C) in the United States over the course of the twentieth century, but the observations show that the increase was about 0.25°F (0.14°C) (Hansen, J.E., et al., 1999: GISS analysis of surface temperature change. *Journal of Geophysical Research*, 104, 30,997–31,022), or about 10 times less than the forecast [Hansen has since revised

this to 0.5°C, which makes the prediction three times greater than what has been observed].... The CCC forecast of precipitation changes across the United States is equally extreme. Of all the models reviewed for inclusion in the USNA, the CCC model predicted more than twice the precipitation change than the second most extreme model, which interestingly, was the U.K. model [the other model used in the NACC]. The U.K. model itself forecast twice the change of the average of the remaining, unselected models. Therefore, along with the fact that GCMs in general cannot accurately forecast climate change at regional levels, the GCMs selected as the basis for the USNA conclusions do not even fairly represent the collection of available climate models.

Why deliberately select such an inappropriate model as the CCC? [Thomas Karl, co-Chair of the NACC synthesis team replied that] the reason the USNA chose the CCC model is that it provides diurnal temperatures; this is a remarkable criterion given its base performance....”

“The USNA’s high-end scenarios are driven by a model that 1) doesn’t work over the United States; 2) is at functional variance with virtually every other climate model. It is simply impossible to reconcile this skewed choice with the rather esoteric desire to include diurnal temperatures...”

Explanatory text: *It is clear that the NACC chose two extreme models out of a field of literally dozens that were available. This violates the FDQA requirements for “objectivity” detailed in the third paragraph of this Petition.*

Second, Dr. Michaels is clearly not alone in his assessment. The following are excerpts from comments by government reviewers, received and possessed by USGCRP, or USGCRP’s “peer reviewers” failed attempts to elevate the NACC to the level of scientific product. For example, consider that styled “**Improper use of climate models**”, by William T. Pennell of Northwest National Laboratory, submitted through DOE (John Houghton) to Melissa Taylor at USGCRP:

“Although it is mentioned in several places, greater emphasis needs to be placed on the limitations that the climate change scenarios used in this assessment have on its results. First, except for some unidentified exceptions, only two models are used. Second, nearly every impact of importance is driven by what is liable to happen to the climate on the regional to local scale, but it is well known that current global-scale models have limited ability to simulate climate effects as this degree of spatial resolution. We have to use them, but I think we need to be candid about their limitations. Let’s take the West [cites example]...Every time we show maps that indicate detail beyond the resolution of the models we are misleading the reader.”

USGCRP received other comments by governmental “peer reviewers” affirming these clear, significant, indeed disqualifying modeling data transgressions:

“Also, the reliance on predictions from only two climate models is dangerous”. Steven J. Ghan, Staff Scientist, Atmospheric Sciences and Global Change, Pacific Northwest Laboratory.

“This report relies too much on the projections from only two climate models. Projections from other models should also be used in the assessment to more broadly sample the range of predicted responses.” Steven J. Ghan Staff Scientist, Atmospheric Sciences and Global Change, Pacific Northwest Laboratory.

“Comments on National Assessment. 1. The most critical shortcomings of the assessment are the attempt to extrapolate global-scale projections down to regional and sub-regional scales and to use two models which provide divergent projections for key climatic elements.” Mitchell Baer, US Department of Energy, Washington, DC.

“General comments: Bias of individual authors is evident. Climate variability not addressed...Why were the Hadley and Canadian GCMs used? Unanswered questions. Are these GCM’s [sic] sufficiently accurate to make regional projections? Nope”. Reviewer Stan Wullschleger (12/17/99).

William T. Pennell, Manager, Atmospheric Sciences and Global Change, Pacific Northwest Laboratory, cites the that “only two models are used” as a “limitation” on the product.

The final NACC currently disseminated by OSTP shows these admonitions went unheeded.

Stated simply, the climate models upon which NACC relies struck out. Strike one: they can't simulate the current climate. Strike two: they falsely predict greater and more rapid warming in the atmosphere than at the surface -- the opposite is happening (see *e.g.*, http://www.ghcc.msfc.nasa.gov/MSU/hl_sat_accuracy.html). Strike three: they predict amplified warming at the poles, which are cooling instead (see *e.g.*, <http://www.washingtonpost.com/wp-dyn/articles/A40974-2002Jan13.html>). Worse, NACC knowingly misuses the data demonstrably non-utile for their purported purpose. Being on notice of these facts, OSTP is equally culpable.

2. Failure to Perform Requisite Scientific Review Violates FDQA

USGCRP’s development of NACC drew congressional attention to particular shortcomings relevant to this Request. Specifically, leaders in the United States House of Representatives repeatedly attempted to herd USGCRP and its subsidiary bodies to follow the scientific method regarding particular matters, specifically the regional and sectoral analyses. Indeed the concerns had become so acute that these leaders were compelled to promote a restriction prohibiting relevant agencies from expending appropriated monies upon the matter at issue, unless consistent with the plain requirements of the GCRA of 1990, through language in the conference report accompanying Public Law 106-74:

“None of the funds made available in this Act may be used to publish or issue an

assessment required under section 106 of the Global Change Research Act of 1990 unless (1) the supporting research has been subjected to peer review and, if not otherwise publicly available, posted electronically for public comment prior to use in the assessment; and (2) the draft assessment has been published in the Federal Register for a 60 day public comment period.”¹

USGCRP did not perform the conditions precedent for valid science as reaffirmed in that language. Instead USGCRP produced and now disseminates a NACC knowingly and expressly without the benefit of the supporting science which not only is substantively required but which Congress rightly insisted be performed and subject to peer review prior to releasing any such assessment.

These attempts to rectify certain NACC shortcomings were made in advance of USGCRP producing the NACC, but were never rectified. These failures justify Petitioners’ request that USGCRP cease present and future NACC dissemination unless and until its violations of FDQA are corrected. In addition to NACC violating FDQA’s “objectivity” and “utility” requirements, as “influential scientific or statistical information”, NACC also fails its “reproducibility” standard, setting forth transparency regarding data and methods of analysis. Per OMB, this represents “a quality standard above and beyond some peer review quality standards.”²

Given USGCRP’s refusal to wait for completion of the underlying science and their response to the relevant oversight chairmen, it is manifest that USGCRP ignored or rejected these lawmakers’ requests, including by the relevant oversight Chairmen and produced a deeply flawed Assessment, knowingly and admittedly issuing a “final” Assessment without having complied with Congress’s direction to incorporate the underlying science styled as “regional and sectoral analyses,”³ while also admitting that the requisite scientific foundation would be completed imminently. For these same reasons dissemination presently violates FDQA.

¹ House Report 106-379, the conference report accompanying H.R. 2684, Department of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act, 2000 (Pub.L. 106-74), p. 137.

² As established in *CEI et al. v. Bush*, Congress detailed for USGCRP its more obvious scientific failures which ensure that NACC now violates FDQA, noting USGCRP’s apparent failure to comply with such conditions and seeking assurance that such circumstances would be remedied. USGCRP via OSTP drafted a response to House Science Committee Chairman Sensenbrenner, evasively failing to specifically address the concerns raised by these Members. Chairmen Sensenbrenner and Calvert specifically took issue and/or disputed these non-responses in the July 20, 2000 letter, reiterating their request for compliance with the law’s requirements. Nonetheless, the failings persist.

³ This despite that the two principal NACC sections are “Regions,” and “Sections.” (See <http://www.gcric.org/nationalassessment/overvpdf/1Intro.pdf>).

3. NACC Not in Fact Peer Reviewed, the Record Makes Clear

Finally, NACC suffers from having received no authentic peer review, in violation of FDQA's "objectivity" and "utility" requirements. As "influential scientific or statistical information", for these reasons NACC also fails the "reproducibility" standard, setting forth transparency regarding data and methods of analysis, "a quality standard above and beyond some peer review quality standards."

Once an advisory committee was chartered pursuant to the Federal Advisory Committee Act (FACA) in 1998, Dr. John Gibbons' communication of January 8, 1998 to the first Designated Federal Officer (DFO) Dr. Robert Corell indicates a sense of urgency was communicated to the panel by political officials. Further, statements in the record and major media outlets, including but in no way limited to those from certain anonymous if purportedly well placed sources, indicate a perception among involved scientists that political pressures drove the timing and even content of this draft document. This is manifested by the lack of opportunity to comment for parties whose comment was formally requested as part of a "peer review" of NACC.

This sense of urgency is reflected in, among other places, comments the Cooler Heads Coalition obtained via the Freedom of Information Act, made by parties from the National Laboratories asked by the Department of Energy to comment on the Draft. In addition to an emphasis on speed as opposed to deliberation, the report's emphasis on "possible calamities" to the detriment of balancing comments which were widely offered, and rampant criticism of the reliance on only two significantly divergent models for the pronouncements made, these comments are exemplified by the following samples from well over a dozen such complaints accessed through FOIA, also received by and in the possession of USGCRP:

- 1) "This review was constrained to be performed within a day and a half. This is not an adequate amount of time to perform the quality of review that should be performed on this size document" (Ronald N. Kickert, 12/08/99);
- 2) "During this time, I did not have time to review the two Foundation Document Chapters" (Kickert, 12/20/99);
- 3) "Given the deadline I have been given for these comments, I have not been able to read this chapter in its entirety" (William T. Pennell);
- 4) **"UNFORTUNATELY, THIS DOCUMENT IS NOT READY FOR RELEASE WITHOUT MAJOR CHANGES"** (CAPS and bold in original)(Jae Edmonds);
- 5) "This is not ready to go!" (William M. Putman).

These comments reflect an alarming implication of timing over substance, and of a product

whose final content appears predetermined. Patrick Michaels' comments, and the absence of apparent change in response to his alarming findings, reinforces this troubling reality. Notably, the product was released and continues to be disseminated without offering an actual peer review or otherwise addressing the concerns expressed.

In conclusion, the National Assessment on Climate Change fails to meet FDQA and/or OMB and OSTP Guidelines regarding Data Quality. **As a consequence, OSTP must immediately cease electronic and other dissemination of the unacceptable data provided by the National Assessment on Climate Change, as defined by OMB, and now OSTP, and described, *supra*.**

Sincerely,

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III. Press Coverage of the CCSP Strategic Plan

New York Times
Editorial Desk | March 1, 2003, Saturday
Rebuked on Global Warming

Late Edition - Final, Section A , Page 18 , Column 1

Nothing so far has shamed President Bush into adopting a more aggressive policy toward the threat of global warming. He has been denounced by mainstream scientists, deserted by his progressive friends in industry and sued by seven states. Still he clings stubbornly to a voluntary policy aimed at merely slowing the growth of greenhouse gas emissions, despite an overwhelming body of evidence that only binding targets and a firm timetable will do the job.

Now there is fresh criticism from sources Mr. Bush may find harder to ignore. Last week Prime Minister Tony Blair of Britain, Mr. Bush's most loyal ally in the debate over Iraq, gently but firmly rebuked the president for abandoning the 1997 Kyoto Protocol on global climate change and for succumbing to the insupportable notion that fighting global warming will impede economic growth.

That was followed by another salvo, from an expert panel assembled by the National Academy of Sciences to assess Mr. Bush's proposals for further research into climate change. Though polite, the panel could hardly have been more contemptuous. It described Mr. Bush's plan as a redundant examination of issues that had largely been settled, bereft of vision, executable goals and timetables - in short, little more than a cover-up for inaction.

Of the two rebukes, Mr. Blair's may have been the more painful. The prime minister said he regarded environmental degradation in general and climate change in particular as "just as devastating in their potential impact" as weapons of mass destruction and terrorism. "There will be no genuine security," he said, "if the planet is ravaged." He also pledged to cut Britain's greenhouse gas emissions by 60 percent by midcentury, a longer-range but still a far more ambitious timetable than Kyoto's target of an average 5 percent reduction by industrialized nations by 2012.

Mr. Blair's speech obviously served the political purpose of distancing himself from the White House, at least on this issue, at a time when many of his countrymen have criticized him for his support of Mr. Bush on Iraq. It should also be noted that, in strictly economic terms, it is easier for Mr. Blair to hold the high ground on this issue than it is for Mr. Bush. Prime Minister Margaret Thatcher's wrenching decision some years ago to convert Britain's energy base from coal to natural gas, a much cleaner fuel, has already moved Britain closer to Mr. Blair's lofty targets than it otherwise would have been.

Nevertheless, the prime minister's approach is everything Mr. Bush's is not. It conveys a sense of urgency, calls for common sacrifice and offers a coherent vision of how to get from here to there. It is, in short, a recipe for the leadership that until not too long ago the world had been looking to America to provide.

The Guardian
Oliver Burkeman in Washington
Thursday February 27, 2003

Advisers tell Bush climate plan is useless
Strategy 'lacks vision, goals, timetable and criteria'

George Bush's strategy on global warming suffered a setback yesterday when a panel of scientists convened at the request of the White House condemned it as lacking vision, and wasting time and money on research questions that were resolved years ago.

Mr Bush's plan, introduced after the US backed out of the Kyoto protocol, replaces that treaty's call for mandatory limits on greenhouse gas emissions with a decade-long programme of research to determine the scale of the problem.

But the 17 environmental experts, assembled by the National Academy of Sciences at the president's request, said in their report that the president's strategy "lacks most of the basic elements of a strategic plan: a guiding vision, executable goals, clear timetables and criteria for measuring progress", and misses the opportunity to cooperate more with other countries on research.

"I've been doing ecosystems science for 30 years, and we know what we know and what we don't know," William Schlesinger, a panel member, told the Guardian. "Rather than focusing on the things we don't know, it's almost as if parts of the plan were written by people who are totally unfamiliar with where ecosystems science is coming from.

"They say we ought to be monitoring methane in remote regions," said Dr Schlesinger, the dean of Duke University's Nicholas School of the Environment and Earth Sciences in Durham, North Carolina. "Well, we've been monitoring some of these things for 30 years, and there's no question that the levels are rising."

The Bush plan also urges, for example, more research on how carbon emissions are affected by forest fires, a question largely seen as resolved within the academy.

"They didn't set the hard priorities," said Michael Prather, an earth scientist from the University of California at Irvine and a panel member. "From the scientists' point of view, we have a pretty good idea of what is happening."

The experts also call for "greatly increased" spending on addressing climate change, far above the \$1.7bn per year earmarked. They concede that the plan is "a solid foundation", going further towards formulating a strategy on global warming research - as required by a 1990 act of Congress - than either the first President Bush or Bill Clinton.

James Mahoney, director of the government's climate change science programme, which is charged with executing the plan, said he welcomed the panel's criticisms. "Nobody

ever undertook to do something like this before. There are certainly areas where we need to improve," he said. "But we're in a process where we pushed to very quickly turn around a battleship, and we've never had a plan before."

But the scientists' findings may cause concern in the administration in the few weeks of the consultation period that remain, not least because the panel included experts from corporations including BP and Honeywell.

Mr Bush has been accused of claiming that more research is needed in order to stall moves towards limiting US greenhouse gas emissions. Environmental groups accuse the oil company Exxon Mobil of leading a campaign in the US to discredit scientific findings suggesting that the dangers of global warming are grave.

"There's no question that if you claim that not much is known, even if it is, then you delay the time at which you can say, OK, the research is unequivocal and we need to do something about the problem," Dr Schlesinger said. "It's not very far beneath the surface that there's an element of not taking any action here."

Letter to the Editor, London Guardian (UK):

Oliver Burkeman's article "Advisers tell Bush climate plan is useless" (February 27) discusses a report released by the National Research Council, the operating arm of the National Academy of Sciences and the National Academy of Engineering, on the draft U.S. Climate Change Science Program (CCSP) strategic plan.

This article misrepresented the report's conclusions in several important ways. First, its headline is not at all consistent with the committee's overall assessment of the draft plan. The committee concluded, "In general, the draft plan provides a solid foundation for the CCSP." Although the report called on CCSP to make substantial revisions, it stated that the draft plan "represents a good start to the process" and "clearly builds upon the substantial and largely successful research programs of the last decade."

Second, the NRC report did not state that the draft plan wastes "time and money on research questions that were resolved years ago." In fact, the committee found that it "identifies many of the cutting-edge scientific research activities that are necessary to improve understanding of the Earth system."

This committee worked hard to provide constructive advice to the CCSP as it takes on the challenging task of revising its draft strategic plan. In so doing, it identified the plan's strengths as well as many opportunities for improvement. Your article would have been more informative to your readers if it had accurately reflected the consensus views of our committee.

Respectfully,

E. William Colglazier
Executive Officer
U. S. National Academy of Sciences and National Research Council

Milwaukee Journal Sentinel
Editorial: Awaiting that climate plan
March 5, 2003

Awaiting that climate plan

If the Bush administration wants its position on global climate change to be taken seriously, it needs to get serious about keeping a presidential promise and coming up with a plan to address the issue. Granted, the administration has much on its plate right now. But so far, appearing serious on climate change seems to be missing from that plate.

At least that's the impression one gets from a report released last week by a panel of the National Academies, which commended the administration for addressing global warming but criticized the administration's draft plan for having serious gaps.

"The draft plan lacks most of the basic elements of a strategic plan: a guiding vision, executable goals clear timetables and criteria for measuring progress," said the report. The panel of experts, convened at the administration's request, found that the plan listed dozens of contrasting goals without setting priorities and that its research proposals were 20 years out of date. "Stuff that would have been cutting edge in the 1980s is listed as a priority for the future," said one panel member.

There is sometimes a good reason to review assumptions, but there's rarely a good reason to reinvent the wheel. At the very least, the administration needs to show whether what it is doing is the former or the latter. More important, a draft plan dealing with climate change must set priorities based on a solid understanding of the issue. How that can happen without a vision, goals, timetables and criteria for measuring progress is difficult to imagine.

Some environmentalists dismiss the plan as a joke. Maybe they're right. Maybe there was never any intention to take climate change seriously. President Bush and his people have consistently downplayed the threat posed by global warming and questioned the assumptions behind it. They certainly didn't hesitate to pull the United States out of the Kyoto Protocol on climate change.

Not all of this is bad: Pulling out of Kyoto was a good move - the U.S. Senate had previously rejected the treaty in a 95-0 vote - and reasonable doubts can be raised about the conventional wisdom on climate change. There are still too many questions about what is happening - and especially why - to be certain about anything. But that doesn't mean the issue can be dismissed; it only means that more study is needed.

In pulling out of Kyoto, the administration said it would come up with its own plan for dealing with climate change. To date, it has not done so, and the National Academies report suggests that the administration isn't very serious about ever doing so. Maybe that's just appearance, or maybe the environmentalists are right.

What the administration needs to do is change the appearance by demonstrating that it is serious about finding out what's really going on with the climate. It can start by paying heed to the National Academies report and making the necessary changes in the final plan, due out next month.

The Policy Drought on Climate Change

The holiday season here in the United States was ushered in by a long-awaited report, heralded as laying out the administration's research agenda for climate change. It should interest those in the United States who may have been expecting something meaningful from their government, along with those in Europe and elsewhere who have come to expect disappointment.

The draft strategic plan for the combined U.S. Global Change Research Program (USGCRP) and Climate Change Research Initiative (CCRI) will not surprise the second audience and will tell the first that it has fallen victim to yet another triumph of hope over experience. This long report, available at <http://globalchange.gov/#USGCRP-CCRI>, offers a smorgasbord of moderate-intensity research efforts but merely urges more study on the role of anthropogenic sources in global warming. And it includes NONE of the following: analysis of the tradeoffs involved in a major regulatory push toward fuel economy in the transportation sector, proposed cap-and-trade or other incentives for reducing carbon dioxide emissions, and a research program aimed at sequestration technologies. It is, in short, a wait-and-see document.

The scientific evidence on global warming is now beyond doubt. Readers of these pages during the past couple of years have seen one careful study after another documenting the role of anthropogenic sources of carbon dioxide and other greenhouse gases in global warming; describing the impact of past and present climate change on marine and terrestrial ecosystems; and measuring rates of glacial melting in the Arctic, the Antarctic, and on the tops of low-latitude mountains.

Old hands have noted a strange resemblance between this effort and an earlier one. NAPAP, begun in the late 1980s, was a Reagan-era effort to study the acid rain problem (the acronym stands for National Acid Precipitation Assessment Project). It was cranked up with some fanfare and had the same leadership as the present study, in the person of James Mahoney (who is probably not to be blamed for either outcome). Like the present climate change plan, NAPAP essentially concluded that the problem needed more careful study. Ironically, it arrived too late, well after the administration of Bush I had decided to take acid rain more seriously. The result was that Congress, with considerable consultation and design coming from the White House, passed the 1990 Clean Air Act amendments containing tradable-permits provisions for limiting sulfur dioxide emissions.

It's probably way too much to hope that a similar rescue might be at hand in this case, but there are encouraging signals out there. First, it now appears that industry takes the problem more seriously than the government—surely a record. British Petroleum and other energy companies now clearly expect to be doing business in a low-carbon economy, and they are spending serious money to prepare for it. So is the electric power industry, where some leaders have already made voluntary carbon offsets. Meanwhile, hybrid cars are proliferating and the insurance industry is worried about its viability. Second, Congress may be noting that the politically popular goal of energy independence is linked to that of reducing global warming, and their constituents don't have to read *Science* to know that most glaciers are melting. It's in their daily newspaper. Third, some states, weary of federal inaction in the matter, have been passing rules of their own: California recently passed a tough law to limit future fleet carbon emissions standards, despite the usual complaints from auto manufacturers that the sky would fall.

Especially relevant to the scientific community is that there will be an independent review of the administration's plan by a National Research Council panel chaired by Tom Graedel of Yale. This is an opportunity for the National Academies to make a real difference. The Graedel panel should not be satisfied simply with a marginal critique of what's there in the report. What isn't there is important, so the panel needs to undertake an independent review of the situation, evaluate the seriousness of the challenge, and explain to the government what is missing from the report. The U.S. scientific community has come to expect a great deal from the Academies. In this case, the stakes are well beyond national interest, because the nonparticipation of the United States in the global effort on climate change is more than a national embarrassment. It's dangerous.

Donald Kennedy

The
administration's
draft strategic
plan is just a
wait-and-see
document.

The Climate Divide

Several weeks ago on this page, I vented some complaints about the Bush administration's draft Climate Change Science Plan (CCSP). That plan was, and is, a complicated hybrid creature consisting of the preexisting Global Change Research Program begun by Bush père, along with a modest Climate Change Research Initiative added by the incumbents. The latter is aimed at helping managers (for example, those responsible for water resources) adapt to climate change, an objective that certainly makes some sense. The older program contains some potentially useful long-range research elements and has received to date about \$20 billion in support. Taken as a whole, however, the draft report was remarkable in that it included no recommendations for emissions limitation or other forms of mitigation. The current climate change policy depends entirely on voluntary reduction targets, which, even if met, would allow U.S. emission rates to continue to grow at around 14% per decade.

On balance, it looked like a very disappointing report. That led us to plead that the National Research Council (NRC) committee appointed to review the program should please look hard at what wasn't there, as well as what was. So far, the NRC draft (*Science*, 7 March, p. 1494) looks as though it has done half the job. It is sharply critical of the report's lack of vision, calls attention to the lack of adequate funding, and expresses concern about the lack of coordination. That's well-deserved criticism, but how about what's missing from the CCSP report? Does it make sense to offer a plan that lays out some ways of dealing with climate change but has no program for risk reduction? James Mahoney, the director of the CCSP project, promises that the final version will be different from the draft we've seen. One can always hope, but our experience to date has not been encouraging.

The failure to act promptly on climate change carries heavy prospective penalties. The administration's plans to date have studiously ignored the need to front-load the reductions in emissions of greenhouse gases (GHGs). Their strategy has been to delay these limits, on the assumption that what matters is the final atmospheric concentration of GHGs achieved at some future date, rather than the rate at which they are accumulating in the meantime. But a growing body of evidence disfavors this "slow ramp" hypothesis of global warming, with its emphasis on gradual change followed by societal adaptation to the altered climate regime. Instead, it now appears equally likely that warming events will trigger an abrupt nonlinear process, producing dramatic regional temperature decreases, especially in the temperate Northern Hemisphere. Recently analyzed records of historic climate change show that just such sudden alterations have happened in the past, preceded by radically revised patterns of oceanic circulation. Thus, the "business-as-usual" alternative that defers emission reductions may be a dangerous one.

A refreshing counterpoint to the U.S. effort is offered by the British plan announced on 24 February by Prime Minister Tony Blair (www.dti.gov.uk/energy/whitepaper/index.shtml). It provides for aggressive short-term emission reduction targets for GHGs; these would actually reduce emissions by 60% by 2050, even without nuclear power. That achievement would, by a large margin, beat the targets established by the Kyoto Protocol—targets that the United States wouldn't even talk about. Moreover, the British plan provides research commitments toward the development of renewables and other alternatives to fossil fuels, and sets industry incentives aimed at eventual energy independence. In all these respects, it is a vast improvement on the U.S. plan.

How different things might have been had the United States chosen to participate actively in the post-Kyoto climate framework process after the 2000 elections. Instead, the Bush administration took a contemptuous pass on multilateral engagement with the global warming problem, a stance that began the long, continuing process of eroding its friendships in Europe. Had it chosen to be a player instead of a critical spectator, it might have learned something about the importance of the issue, as the British did. And it might not have generated the kind of smoldering resentment that is currently creating a coalition of the unwilling with respect to the Iraq problem. Actions, after all, do have consequences.

The U.S. plans to date have studiously ignored the need to front-load the reductions in emissions of greenhouse gases.

The British plan sets industry incentives aimed at eventual energy independence.

Donald Kennedy
Editor-in-Chief



Contact: Kent Laborde
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FOR IMMEDIATE RELEASE
March 27, 2003

CCSP announces new release date for revised strategic plan

The U.S. Climate Change Science Program (CCSP) has scheduled June 25, 2003 for release of its revised Strategic Plan. Although later than originally planned, this revised schedule will allow sufficient time for full consideration of the wide array of useful suggestions received by CCSP from many sources since publication of its November 2002 *Discussion Draft Strategic Plan*.

CCSP received extensive comments and suggestions during the Climate Science Workshop attended by more than 1,300 climate specialists in December 2002. In the weeks following the Workshop, CCSP also received 270 sets of written public comments, involving nearly 900 pages of text. The most recent set of comments, from a CCSP-requested evaluation by the National Research Council (NRC), was released in late February 2003. The November 2002 Discussion Draft Strategic Plan and all of the response comments (from the Workshop, the public comment period, and the NRC report) are available on the CCSP web site www.climate-science.gov.

"We welcome the wide range of useful comments, which will help to substantially strengthen the revised plan," said Dr. James R. Mahoney, Assistant Secretary of Commerce for Oceans and Atmosphere and CCSP Director. "Since climate change is such a critical issue, we must understand and reconcile the diverse comments, including those that provide conflicting recommendations for future research and decision support activities."

The revised CCSP Strategic Plan will guide the concerted U.S. effort to understand the nature and implications of changes in global climate and related environmental systems. It describes high-level program objectives, specific research questions, and analyses that will support decision making on global and regional climate issues.

"All of the input has been supportive of the open, inclusive and transparent approach taken to develop the plan. We viewed the *CCSP Discussion Draft Strategic Plan* as a starting point, and made every effort to provide a forum that would encourage suggestions for improvement," Mahoney said. "We value all of the comments and believe that the tremendous response to the draft is proof of the importance of our efforts."

The Climate Change Science Program is a cooperative effort among 13 governmental agencies, and is charged with overseeing the Congressionally-mandated U.S. Global Climate Research Program (USGCRP) and the Climate Change Research Initiative (CCRI). The CCRI was launched by the President in June 2001 to reduce significant uncertainties in climate science, improve global climate observing systems, and develop resources to support policymaking and resource management. For more information, please visit www.climate-science.gov



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March 7, 2003

Letter to the Editor, New York Times:

The editorial "Rebuked on Global Warming" (March 1) refers to a recent report of a panel that I chair for the National Research Council, the operating arm of the National Academy of Sciences and the National Academy of Engineering, on the draft U.S. Climate Change Science Program strategic plan.

Your statement "though polite, the panel could hardly have been more contemptuous" is not an accurate representation of the panel's views. We provided, on request, candid and constructive comments on the draft strategic plan, so that the final plan will be more effective.

Your statement that our report "describe[d] Mr. Bush's plan as a redundant examination of issues that had largely been settled" is also not an accurate representation. We concluded that the draft plan "identified many of the cutting-edge scientific research activities that are necessary to improve understanding of the Earth system." Among our significant recommendations, however, were that the draft plan be revised to clarify the vision and goals of the program, improve its treatment of program management issues, fill key information needs, enhance efforts to support decision making, and set the stage for implementation. The panel will be issuing a second report reviewing the government's final plan.

Respectfully,

Thomas E. Graedel
Yale University
Chair, National Research Council's Committee to Review the U.S. Climate Change Science
Program Strategic Plan

February 7, 2003 State Department Press Release on U.S.-EU Joint Meeting on Climate Change Science and Technology Research



Press Statement
Richard Boucher, Spokesman
Washington, DC
February 7, 2003

United States and European Union Joint Meeting on Climate Change Science and Technology Research

Following is the text of a joint statement issued by the United States and the European Union upon the conclusion of the U.S. – EU Joint Meeting on Climate Change Science and Technology Research.

Begin Text:

“The United States and European Union convened the first bilateral “U.S.-EU Joint Meeting on Climate Change Science and Technology Research” in Washington on February 5-6, 2003, following an invitation from Under Secretary of State for Global Affairs Paula Dobriansky to European Commission Research Commissioner Philippe Busquin. The meeting was conducted under the April 23, 2002 agreement of representatives to the U.S.-EU High Level Dialogue on Climate Change to enhance cooperation on climate-related science and research.

The respective delegations were led by Dr. Harlan Watson, Senior Climate Negotiator and Special Representative of the Department of State for the U.S. side, and by Dr. Anver Ghazi, Head, Global Change Unit of the European Commission Research Directorate-General for the European side.

The U.S. delegation included representatives from the White House Office of Science and Technology Policy, U.S. Climate Change Science Program Office, U.S. Department of Commerce National Oceanic and Atmospheric Administration, U.S. Department of Energy, U.S. Department of State, National Aeronautics and Space Administration, National Science Foundation, and U.S. Agency for International Development. The European Union delegation included representatives from the European Commission Research Directorate-General, selected research experts from European Union Member States, and the Delegation of the European Commission to the United States.

The two sides identified cooperative research activities in six areas: (1) carbon cycle research; (2) aerosol-climate interactions; (3) feedbacks, water vapor and thermohaline circulation; (4) integrated observation systems and data; (5) carbon capture and storage; and (6) hydrogen

technology and infrastructure. Specific topics of potential cooperation in each area are identified in an annex to this statement available at: www.state.gov/p/oes/climate/.

The two sides agreed to designate points of contact to coordinate the development of specific research activities and modalities of cooperation and to monitor the progress of these activities, building on existing cooperative arrangements wherever possible.

The two sides further agreed to review the progress of their cooperation at the next Joint Meeting, which could take place in Italy later this year. Additional topics to be considered then are abrupt climate change including critical thresholds, integrated assessment of mitigation and adaptation options, linkages between climate change management and energy systems transformations, and capacity building for strengthening the involvement of developing countries and young scientists in climate change research and monitoring.”

End Text.

ANNEX—United States and European Union Joint Meeting on Climate Change Science and Technology Research: Specific Topics of Potential Cooperation

The United States and European Union identified cooperative research activities in the six areas at the first bilateral “U.S.-EU Joint Meeting on Climate Change Science and Technology Research” held in Washington on February 5-6, 2003: (1) carbon cycle research; (2) aerosol-climate interactions; (3) feedbacks, water vapor and thermohaline circulation; (4) integrated observation systems and data; (5) carbon capture and storage; and (6) hydrogen technology and infrastructure. Other non-greenhouse gas emitting energy sources (e.g., nuclear energy, renewable energies), although not discussed in detail, were mentioned as worthy for cooperation in future discussions.

Specific topics of potential cooperation in each area include the following:

Carbon Cycle Research

1. Define and implement an integrated and optimized carbon observing system over the atmosphere, land, and oceans, with special emphasis on the carbon budget of North America, Europe, and the North Atlantic region;
2. Coordinate efforts in modeling (future projections, assimilation methods, and analysis of past changes) integration, interpretation, and future data acquisition strategies;
3. Enhance georeferenced carbon cycle data availability and quality; and
4. Develop common assessment methods and state-of-the-art reports.

Aerosol-Climate Interactions

1. Perform studies of aerosols, their influence on clouds, climate, and links to the water cycle in sensitive regions (hot spots) that are strongly affected by anthropogenic emissions (South and East Asia, and the Mediterranean);
2. Improve emission data sets of reactive gases and aerosols from anthropogenic and biomass burning sources;

3. Perform studies on intercontinental transport and chemical transformation of anthropogenic emissions that affect climate and air quality;
4. Advance integrated global/regional earth system modeling to study feedback mechanisms and develop mitigation and adaptation strategies; and
5. Further satellite observations of reactive gases and aerosols and down-scaling through in situ and remote sensing measurements in anchor stations.

Feedbacks and Climate Sensitivity

1. Improve representations of cloud feedbacks in coupled climate models through participation in the Cloud Feedbacks Model Intercomparison Project (CFMIP);
2. Begin to quantify and reduce uncertainty in model predictions through joint work on ensemble approaches to integrated climate change scenarios; and
3. Maintain and enhance participation in joint research on thermohaline circulation.

Integrated Observation Systems and Data

1. Cooperate, within existing international frameworks, to plan and develop the integrated observation systems required to provide the data needed for climate change research;
2. Continue with efforts to combine satellite and in situ global observations that are essential to detect climate change and improve evolving climate models, especially to encourage expanded involvement of developing countries to fill gaps in existing databases;
3. Encourage and further improve the sharing and archiving of climate data and the design of common standards and formats; and
4. Encourage the widest possible participation in the Earth Observation Summit in July 2003 and prepare for appropriate follow-up.

Carbon Capture and Storage

1. Identify potential areas of collaboration on carbon capture and storage;
2. Foster collaborative research and development projects;
3. Identify opportunities to discuss the perspectives of governments and other key stakeholders; and
4. Discuss planning, including research and development, for large integrated sequestration and energy plant projects.

Hydrogen Technology and Infrastructure

1. Development of international codes and standards including testing and certification;
2. Pre-competitive research and development on critical enabling technologies including: polymer electrolyte membrane (PEM) fuel cells, non-precious metal catalysts, high temperature membranes, solid oxide fuel cells, hydrogen storage concepts (e.g., carbon nanostructures and complex metal hydrides), refueling technologies and procedures, and hydrogen production;
3. Data exchange on hydrogen energy technology and fuel cells; and
4. Benchmarking of development and deployment strategies for hydrogen energy technologies and fuel cells.

[End]

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Scott Rayder <Scott.Rayder@noaa.gov> (Scott Rayder <Scott.Rayder@noaa.gov> [UNKNOWN])

CREATION DATE/TIME: 1-MAR-2003 16:39:38.00

SUBJECT:: [Fwd: oceansp@ce No. 477, FEBRUARY 28, 2003]

TO: Ron Bonjean <RBonjean@doc.gov> (Ron Bonjean <RBonjean@doc.gov> [UNKNOWN])
READ: UNKNOWN

TO: "Jordan St. John" <Jordan.St.John@noaa.gov> ("Jordan St. John" <Jordan.St.John@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: Conrad C Lautenbacher <Conrad.C.Lautenbacher@noaa.gov> (Conrad C Lautenbacher <Conrad.C.Lautenbacher@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: Bob Hopkins <robert.hopkins@noaa.gov> (Bob Hopkins <robert.hopkins@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Matthew Englehart <MEnglehart@doc.gov> (Matthew Englehart <MEnglehart@doc.gov> [UNKNOWN])
READ: UNKNOWN

TO: James R Mahoney <James.R.Mahoney@noaa.gov> (James R Mahoney <James.R.Mahoney@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: Craig Montesano <Craig.Montesano@noaa.gov> (Craig Montesano <Craig.Montesano@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: MaryBeth Nethercutt <MaryBeth.Nethercutt@noaa.gov> (MaryBeth Nethercutt <MaryBeth.Nethercutt@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TEXT:

See 1 h--David Graham put a nice spin on this for us.

----- Original Message -----

Subject: Oceansp@ce No. 477, FEBRUARY 28, 2003

Date: Sat, 1 Mar 2003 19:56:03 +0000

From: <oceanspace@Spearhead.co.uk>

To: oceanspace@Spearhead.co.uk

Oceansp@ce No. 477, FEBRUARY 28, 2003

THE VOICE OF THE GLOBAL OCEAN BUSINESS COMMUNITY

Editor: David M. Graham, Arlington, Virginia. News and announcements to oceanspace373@aol.com; new [FREE] subscription requests to oceanspace@spearhead.co.uk.

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AND NOW TO THE NEWS

1. THE AMERICAS

- 1a. C & C SUPERVISES GULFSTREAM PIPELINE SURVEY
Lafayette, Louisiana, USA -- Since July 2001, C & C Technologies Inc. has been supervising the survey of the Gulfstream pipeline near Tampa Bay,

Florida. The pipeline stretches 656 miles and ranges in size from 16-36 inches in diameter. This is the longest pipeline in the Gulf of Mexico and cost more than \$1.6 billion to complete.

C & C's Gene Prather said selection was precipitated by the firm's project management experience relating to inland and offshore pipeline surveys. This project is expected to continue until April 2003, he said. Upon completion, the pipeline will be capable of transporting 1.1 billion cubic feet of gas per day to Florida's energy consumers. For more, send e-mail to info@cctechnol.com or contact Prather at +1 (337) 261-0660. Also see <http://www.cctechonl.com/>.

1b. CHESAPEAKE TEAMS WITH HARVEY-LYNCH

Mountain View, California, USA -- Chesapeake Technology Inc. here announced

last week a new collaborative agreement with its newest sales partner Harvey-Lynch Inc. of Stafford, Texas. "We are extremely pleased to be working with Harvey-Lynch and view this agreement as an important step for Chesapeake's continued business expansion in the Gulf of Mexico and beyond," declared Chesapeake's John Gann. "Harvey-Lynch is a licensed reseller of all Chesapeake products including Sonarwiz for side-scan and sub-bottom acquisition as well as our side-scan and sub-bottom processing package: Sonarweb."

Since 1970, Harvey-Lynch has provided sales, leasing, service & repair, and equipment rental services to various facets of the land and marine industry.

Chesapeake provides marine data acquisition and processing software and development services to government, commercial, and academic customers. For

more, visit <http://www.chesapeaketech.com/> or e-mail Gann at info@chesapeaketech.com.

1c. COASTAL OCEANOGRAPHICS WINS CANADIAN CONTRACT

Middlefield, Connecticut, USA -- Coastal Oceanographics Inc., developer of

software for marine and dredging applications, reports it was recently awarded a contract by the Marine Hydrographic Services of Public Works & Government Services Canada (PWGSC). According to Coastal's Lourdes R.. Evans, the Connecticut firm will supply its HYPACK MAX and HYSWEEP hydrographic surveying software. This system will replace PWGSC's current

data collection and processing software, she said. In March 2003, Coastal

Oceanographics will deliver five HYPACK MAX and five HYSWEEP/HYPACK MAX Office licenses. The installation and training is scheduled for the end of March.

Both hydrographic surveying software packages are used throughout the world

for survey design; single, multi-transducer, and multibeam data collection;

graphical editing; plotting; volume computations; surface modeling; and contouring, Evans noted. For more information, visit

<http://www.coastalo.com/> or contact Evans via sales@coastalo.com.

1d. UPLOAD 100 MEGABYTES OF ADCP DATA USING ACOUSTIC MODEMS
San Diego, California, USA -- Underwater acoustic modems are a new way of uploading large amount of data from self-contained profiling acoustic doppler current profiler (ADCP) units, without retrieving the sensors from the deployment site. According to Dr. Ning Xiao, LinkQuest Inc.'s 9600-baud underwater acoustic modem provides the method. Uploading the data from a surface ship using acoustic modems has proven to be practical and reliable, he said. LinkQuest's high-speed modems allow the user to collect two to three megabytes of data within 1 to 1.5 hours of onsite retrieval. Recently, Walsh Environmental Inc. (Baton Rouge, Louisiana) set a new record by uploading 100 megabytes of ADCP data at three seafloor-mounted ADCP sites since September 2002.

Xiao said LinkQuest provided three subsea UWM1000 modems to Walsh. Each of these modems is connected to an RD Instruments Inc. (San Diego) Workhorse ADCP. Walsh engineers deployed these ADCPs in September 2002 in coastal Louisiana at water depths from 10 to 15 meters. Oceanographers visit two of the sites every two weeks to upload about 2 megabytes of current data at each site and visit the third site every four weeks to upload about 3-4 megabytes of data. By sending commands from LinkQuest's windows@ software through the surface modem, hung from a vessel, the oceanographers uploaded the data easily, without retrieving the ADCPs.

Parameters of the ADCP were also flexibly adjusted during the visits. In total, about 100 megabytes of data were collected during the six-month period. The maximum size of data collected in a single visit is about 8 megabytes. According to Joel Chaky, staff scientist at Walsh, "LinkQuest's UWM1000 modems provided us a reliable, flexible, and cost-effective way to upload data from the ADCPs. We are very happy with the quality of data collected acoustically and the UWM 1000 modems have performed flawlessly." For more information, visit <http://www.link-quest.com/> or e-mail sales@link-quest.com.

1e. ODOM HYDROGRAPHIC APPOINTS HONG KONG REPRESENTATIVE
Baton Rouge, Louisiana, USA -- Odom Hydrographic Systems Inc.'s Kim Dailey announced the appointment of PIL Systems Ltd. as the exclusive representative in the Hong Kong SAR. In addition to sales, PIL and GeoMarine Technology provide customer support and maintain a spares inventory. According to Richard Byrd, president of Odom Hydrographic, "moving to appoint these proven companies as the exclusive source for Odom products in their respective areas insures the customer base of quality service and support and strengthens the Odom commitment to the market.." Janson So of GeoMarine Technology and Steve Lai of PIL have both

exhibited

"a continuing effort to work within the Chinese markets to provide the same quality of sales and support that has made Odom world-renowned," he added.

For further information about Odom products and services in China, contact

Janson So at +86 755 2364583 in ShenZhen or Steve Lai at PIL Systems at +852 269-23074 for Hong Kong.

1f. COMPUTER MODELS FORECAST SHARP INCREASE IN TEMPERATURE

Denver, Colorado, USA -- According to the American Association for the Advancement of Science, powerful computer models predict that winter temperatures in the polar regions of the world could rise as much as 10§ centigrade in the next hundred years. Scientists say the result is based on

the lack of efforts to control production of carbon dioxide, methane, and

other gases. "With projections to the year 2100, we can show what will happen if we continue with business as usual -- if we don't do anything to

curb emissions of greenhouse gases," said Warren M. Washington, senior research scientist for the U.S. National Center for Atmospheric Research (NCAR). He spoke at the AAAS Annual Meeting here earlier this month.

He noted that concentrations of carbon dioxide and methane did not start to

increase significantly until the 20th century. Washington demonstrated with

charts and graphs worldwide projections for average temperature in 2050 and

2090 and compared the data to the relatively stable temperature pattern in

the 1,000 years that preceded the growing presence of greenhouse gases in

the atmosphere. "The greatest warming takes place in the winter hemisphere

and is strongly influenced by the retreat of snow and ice in high latitudes," said Washington. "The range of (computer) models for global climate change at end of the century is 1.5§ to 6§ C, with most of the models in the range of 2-4§. In the polar regions, the changes [are] of the

order of 8§ to more than 10§ in the winter time of the years."

The computer predictions, produced by the NCAR Parallel Climate Model and by

other computer systems, are made by interpreting data gathered on sea ice,

land-vegetation, ocean and atmospheric components of the climate system, and

creating an interactive system for understanding how they work together to

influence the earth's climate. For more details, see

<http://www.aaas.org/news/releases/2003/0216temp.shtml>.

1g. TRIMBLE INTRODUCES COMPACT CARD GPS RECEIVER

Anaheim, California, USA -- Trimble Navigation Ltd. last month introduced

the BD950, a real-time kinematic (RTK) compact global positioning system (GPS) card for high-precision guidance and control applications.

Featuring

extremely low power and a small form factor, the BD950 receiver is

designed to allow OEMs and system integrators to easily add centimeter-level positioning to specialized or custom hardware solutions.

"The BD950 is ideal for system integrators who need a small, accurate, and low-power GPS solution," said Jürgen Kliem, Trimble's division vice president of survey for Trimble's Geomatics & Engineering Division. "It is easy to integrate and the perfect choice for a wide range of positioning applications in the agriculture, construction, mining, marine, survey, GIS, and seismic markets." With the lowest power consumption of any dual-frequency RTK GPS/WAAS/EGNOS receiver on the market today, he added, the BD950 uses less than 1.5 watts of power. The card's low power requirement results in longer battery life, less heat generation, increased component life, and a more portable end-user product. For more, see <http://www.trimble.com/>.

1h. GOVERNMENT CLIMATE-CHANGE RESEARCH PLAN IS 'GOOD START'
Washington, D.C., USA -- While the U.S. government has taken a good first step toward better understanding and responding to climate change by drafting a strategic plan that contains new research initiatives, the plan lacks a clear guiding vision and does not sufficiently meet the needs of decision-makers who must deal with the effects of climate change, says a new report from the U.S. National Academies' National Research Council. The committee that wrote the report also noted that the president's fiscal year 2004 budget request appears to leave funding relatively unchanged for the U.S. Climate Change Science Program (CCSP), which wrote the draft plan, despite the important new initiatives called for in the plan.

"While past climate-change science has focused on how climate is changing and affecting other natural systems, future science must also focus on more applied research that can directly support decision-making," said committee chair Thomas E. Graedel, professor of industrial ecology, Yale University School of Forestry & Environmental Studies, New Haven, Connecticut. "Research is especially needed to improve our understanding of the possible impacts of climate change on ecosystems and human society as well as options for responding to -- and reducing -- these effects."

The federal government formed CCSP a year ago to facilitate climate-change research across 13 federal agencies. CCSP released its draft strategic plan for public comment in November 2002 and also held a December workshop in Washington where hundreds of climate scientists and other stakeholders commented on the plan. CCSP asked the National Research Council to review the draft plan as well.

CCSP director Dr. James R. Mahoney yesterday expressed his "deep gratification and appreciation" for the newly released NRC report on CCSP's discussion-draft strategic plan. "These recommendations will fortify and strengthen the long-term climate science research program outlined in our discussion draft," Mahoney said. "The recommendations will further enrich what the National Research Council describes in its report as CCSP's 'solid foundation' for better understanding how the climate system might be changing and how those changes may affect human society and natural systems." Mahoney is assistant secretary of commerce for oceans & atmosphere and deputy administrator of the U.S. National Oceanic & Atmospheric Administration.

He noted that the NRC recommendations complement input provided by experts nationwide as part of CCSP's "commitment to a highly open process of public and expert participation in the understanding of climate change issues and response strategies." He added that, "In this important respect, our fall 2002 discussion-draft has served its purpose in stimulating thoughtful and constructive input not only from the NRC but from hundreds of individual and institutional commenters."

Copies of Planning Climate and Global Change Research: A Review of the Draft U.S. Climate Change Science Program Strategic Plan will be available this spring from the National Academies Press. Contact phone is +1 (202) 334-3313 or 1-800-624-6242 or on the Internet at <http://www.nap.edu/>.

1j. MILITARY CONTRACTS NEWS

Raytheon Co., Portsmouth, Rhode Island, was awarded an estimated \$18.1 million contract for the demonstration and development of the Airborne Mine Neutralization System (AMNS). The AMNS is a U.S. Navy airborne mine countermeasure development program. The system will be integrated into the MH-60 helicopter in order to relocate, identify, and neutralize previously detected and classified bottom, close-tethered, and in-volume sea mines. The Naval Sea Systems Command, Washington, D.C., is the contracting activity.

Kollmorgen Corp., Electro-Optical Division, Northampton, Massachusetts, was awarded a \$13.4 million contract modification for engineering services and production of the Universal Modular Mast (UMM) System for installation on Virginia- and SSGN-class submarines. The UMM is a non-hull penetrating mast that raises and lowers sensors. The Naval Sea Systems Command, Washington, D.C., is the contracting activity.

Digital System Resources Inc., Fairfax, Virginia, was awarded a \$10.4

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million contract modification to exercise an option for continued developmental innovative technologies of submarine systems improvements under the Phase III Small Business Innovative Research (SBIR) Program.. The Naval Sea Systems Command, Washington, D.C., is the contracting activity.

Digital System Resources Inc., Fairfax, Virginia, was awarded a \$22.9 million contract modification for fiscal year 2003 multi-purpose processor (MPP) production. The MPP provides hardware and software processing for the towed array on submarines and surface ship platforms. MPP uses commercial off-the-shelf (COTS) based hardware and some COTS based software. The Naval Sea Systems Command, Washington, D.C., is the contracting activity.

Sparton Defense Electronics, DeLeon Springs, Florida, is receiving a \$14.2 million split award for 30,636 AN/SSQ-53F sonobuoys and associated data. The AN/SSQ-53F sonobuoys are dropped from various airborne platforms and utilized for search and detection of submerged submarines. The Naval Surface Warfare Center, Crane Division, Crane Indiana, is the contracting activity.

Undersea Sensor Systems Inc., Columbia City, Indiana, is receiving a \$5.7 million contract for 10,398 AN/SSQ-53F sonobuoys and associated data. The Naval Surface Warfare Center, Crane Division, is the contracting activity.

Electric Boat Corp., Groton, Connecticut, was awarded a \$17.4 million contract modification for new efforts on USS Jimmy Carter to accommodate advanced technology for naval special warfare, tactical surveillance, and mine warfare operations. The Naval Sea Systems Command, Washington D.C., is the contracting activity.

Titan Corp., San Diego, California, was awarded a \$32.6 million contract expansion for the construction, integration, and certification and delivery of the X-craft and data. This effort will involve the planning, shipyard selection, detail design, construction, certification, and delivery of an approximately 1,000-long-ton, high-speed, aluminum catamaran, meeting the requirements of the X-craft performance specification. The Office of Naval Research, Washington, D.C., is the contracting activity.

2. EUROPEAN NEWS

2a. WS ENVIROTECH BITES THE DUST

Alton, Hampshire, U.K. -- WS EnviroTech Ltd., formerly W.S. Ocean Systems, went into voluntary liquidation on December 24, 2002, leaving debts of £527,725.44 owed to some 80 creditors. Liquidator Bob Thompson (of Rendell Thompson, Accountants & Licensed Insolvency Practitioners) stated that

"there is no prospect of a dividend to unsecured creditors." He also noted that "the extent of the losses of the company over the last two years needs to be investigated."

EnviroTech LLC, a Chesapeake, Virginia-based manufacturer, acquired assets from WS EnviroTech. Mark Rawlinson, the managing director and a shareholder in WS EnviroTech when it went into liquidation, has been retained by EnviroTech LLC as chief technical officer. For more information, contact Thompson at the accounting firm on +44 (0)1252 816636.

2b. DRL SOFTWARE APPOINTS TECHNITRADE AS REP IN FRANCE
Godalming, Surrey, U.K. -- DRL Software Ltd. reports it appointed TechniTrade (Saint Jeannet, France) as its exclusive agent in France for DRL

's Sediview software. According to DRL's (Dredging Research Ltd.) John Land, DRL-Sediview? is a processing package for data obtained using RD Instruments Inc. (San Diego, California) acoustic doppler current profilers

(ADCP). In addition to a suite of processing, editing, presentation, and data export facilities, Land said, "Sediview enables the derivation of robust estimates of solids concentration from the acoustic backscatter intensity data. The package is thus invaluable for detailed, quantitative studies of sediment transport in rivers, estuaries, and coastal regions."

The software is provided with full technical support and training in field

techniques and data analysis, he added. For more information, contact DRL

via mail@drl.com. TechniTrade (<http://www.technitrade.info/>) is headquartered in the south of France and has a subsidiary office near Paris

to cover all French territory. As RD Instruments' exclusive representative,

TechniTrade has knowledge of ADCPs and their potential Sediview applications. TechniTrade is also the exclusive representative in France

for EPC Labs Inc. (Danvers, Massachusetts), Geometrics Inc. (San Jose, California), and TriOS GmbH (Oldenburg, Germany).

2c. SOFTWARE FOR MODELING THE SEABED

Nantwich, Cheshire, U.K. -- Rockmate Technical Services' dXm is the easiest,

cheapest way to model the seabed. Create contours, sections, 3-D views, DXF

output. Fully working 30-day evaluation copy at <http://www.rockmate.com/>.

2d. AQUARIUS GPS ORDER FOR ORMSTON TECHNOLOGY

Beverley, East Yorkshire, U.K. - Offshore windmills near Denmark's coast will soon undergo precise alignment with the assistance of a new Thales Navigation (Santa Clara, California) Aquarius 2-22 high-speed, dual-frequency global positioning system (GPS) receiver. The order came to

Ormston Technology Ltd. here from Hydro Soil Services N.V. (Zwijndrecht, Antwerpen, Belgium).

Comprising a basic receiver with keyboard and screen as well as antenna facilities, a spokesman said, the Aquarius 2-22 provides simultaneous heading data and real-time kinematic positioning to centimetric accuracies

over ranges up to 40 kilometers. With 56 independent, parallel dual-frequency channels and configurable radio links, it features a true heading function to within 0.1° or better using a 2-meter baseline while facilitating particularly high levels of processing and availability.

More

about Ormston at <http://www.ormtec.co.uk/>.

2e. RUSSIA MAY BUY NEW ICEBREAKERS FROM FINLAND

Helsinki, Finland - Russia's Pravda is reporting that the unusually severe

ice conditions this year in the eastern part of the Gulf of Finland have forced Russia to think about buying a whole range of new icebreakers from

Finland. This was announced last week in an interview with the STT News Agency by Kimmo Juurmaa, head of the Arctic Research Centre at Finland's leading shipbuilding company, Kvaerner Masa-Yards Inc.

According to Juurmaa, the report continued, Kvaerner Masa-Yards' experts are

currently preparing a proposal for the Russian Transport Ministry on supplying Russia with a range of port icebreakers. If commercial negotiations are successful, the company hopes to receive an order for 15

icebreakers to be built in 2004-2005. One port icebreaker costs about 40

million; the total buy would be worth approximately 600 million. One third

of the icebreakers would be deployed in the Gulf of Finland, one third in

the white sea, and the rest in the Far East, Pravda said.

2f. INTERNATIONAL OCEAN SYSTEMS PREVIEW ISSUE

Twickenham, U.K. -- Astrid Powell, publisher of International Ocean Systems,

writes that her magazine is bringing forward the publication of its special

OI Americas 2003 Exhibition & Conference preview issue to a month before the

show. This premier oceanology show is scheduled for June 4-6 at the Ernest

N. Morial Conference Center in New Orleans, Louisiana. Exhibitors are urged

to send details of their exhibits to International Ocean Systems before March 7 to iosd@msn.com. Advertising for this May/June issue also

closes on

March 17. Find more details about the publication at

<http://www.intoceansys.co.uk/>.

2g. VT TSS ANNOUNCES MAJOR INVESTMENT IN FACILITIES

Witney, Oxfordshire, U.K. -- VT TSS (UK) Ltd. (a VT Group Plc company) is

moving away from the "old woolen mill" at Witney to new digs in Watford, according to a spokesman. The latter site was the manufacturing base for

the company's range of S G Brown navigation equipment.

The Watford site will provide advanced facilities for R&D, product engineering, production, and the servicing of all VT TSS products such

as motion sensors, detection systems, and the existing S G Brown product range. Sales and service outlets for VT TSS will remain at Aberdeen, Scotland, and Houston, Texas. All facilities will be transferred from Witney by the end of July 2003. For more information, contact Carolyn Jones in Witney on +44 (0)1993 777700 or via cjones@tssuk.co.uk.

2h. JOINT VENTURE AIMS TO BE 'TECHNOLOGY HOTHOUSE'
Whitstable, Kent, U.K. -- CEO Stuart Heaver reports that Innovation 4C Ltd. is a new European joint venture company formed by Verhaert (Antwerp, Belgium), O2 Marine Services (Kent), and the Fairwater Technology Group (Aberdeen, Scotland). He coined the theme, "Innovation 4C aims to be a technology hothouse for the marine industry. The new firm, he said, will "combine new technology with industrial engineering and marketing."
Other principals are Jason Reid and Koen Verhaert, directors.

Heaver's first goal at Innovation 4C, he noted, is to find OEM partners in the marine industry for a range of new products and technologies. The first identified for launch are a new miniature solid state compass and attitude sensor (Min-IMU), advanced optic-acoustic sub-bottom sonar (Rheosound), and a satellite based track and trace system for vessels and buoys (S-Trac). For more, go to <http://www.innovation4c.com/> or send e-mail to info@innovation4c.com.

3. AUSTRALASIA NEWS

3a. INDIAN NAVY ORDERS MORE DESO SOUNDERS

Cairns, Queensland, Australia -- The Indian Navy's National Hydrographic Office at Dehradun is upgrading two of its survey vessels. According to a spokesman, ATLAS Hydrographic Holdings Pty. Ltd. received the order for further Atlas DESO 25 echosounders to be installed on the INS Jamuna and INS Sulej. ATLAS Hydrographic GmbH headquarters is located in Bremen, Germany. The spokesman said the new units will complement nearly 40 similar units already in service aboard other naval crafts for hydrographic surveys of Indian waters.

With dual active sounding channels and two additional ones for recording and monitoring signal strength and overviews, he added, the DESO 25 is capable of depth measurements down to 10,000 meters. A bi-directional serial interface provides water depth and echo strength to external computers, which can also be used for remote control of all main operating functions. The Indian naval order follows recent commissioning of six Atlas DESO 25 systems for installation on the first three U.K. Royal Navy Astute-class nuclear-powered attack submarines undergoing construction at the Barrow yard of BAE Systems Marine. More about ATLAS at <http://www.atlashydro.com/>.

4. OFFSHORE OIL & GAS

4a. MMS ISSUES FINAL NOTICE OF CENTRAL GULF LEASE SALE 185

Washington, D.C., USA - Officials at the U.S. Department of the Interior's

Minerals Management Service announced that Lease Sale No. 185, scheduled for March 19, 2003, "continues recent royalty suspension measures designed to increase domestic natural gas and oil production" to meet U.S. energy needs.

The measures include the following: In water depths less than 200 meters,

royalty suspensions apply for the first 20 billion cubic feet of gas production from wells drilled to new reservoirs at 15,000 feet or greater

below sea level. Operators have the opportunity to apply for additional "discretionary" royalty relief in water depths greater than 200 meters, pursuant to regulations at 30 CFR 203, if certain conditions are satisfied,

an MMS spokesman said. Sale 185 is scheduled for the Hyatt Regency Conference Center, in the Cabildo Rooms, 500 Poydras Plaza, New Orleans, Louisiana.

4b. EXXONMOBIL ANNOUNCES FIRST PRODUCTION FROM BINTANG GAS FIELD

Irving, Texas, USA -- Exxon Mobil Corporation announced this week the commencement of first production from the Bintang gas field located in the

South China Sea. Located some 137 miles offshore Terengganu, Malaysia, the

Bintang field is expected to produce approximately 1 trillion cubic feet of

gas with a peak production rate of 355 million cubic feet per day, according

to Terry Koonce, president of ExxonMobil Production Company. Gas from two

Bintang platforms, A and B, will flow via 7 miles of new pipeline to Lawit A

for processing and then to shore via existing pipelines.

Bintang is the second field to be developed under a gas production-sharing

contract with PETRONAS Carigali, a subsidiary of Malaysia's national oil company, PETRONAS, and ExxonMobil, operator of the 50-50 joint venture.

ExxonMobil and PETRONAS Carigali advanced the development of the Bintang field under the terms of the contract to meet increasing national demand for

gas on the Malaysian peninsula. Total project development cost is estimated

at approximately US\$80 million, excluding drilling costs. A total of 10 wells are planned to be drilled this year, Koonce said.

4c. EXXONMOBIL ALSO STARTS PRODUCTION OFFSHORE NIGERIA

Irving, Texas, USA -- Exxon Mobil Corporation also announced recently that

its subsidiary, Mobil Producing Nigeria Unlimited, has started production

from the Yoho development, located in the Nigerian National Petroleum Corporation/Mobil joint venture acreage, oil mining lease 104 offshore

Nigeria. An ExxonMobil spokesman said the \$1.2 billion project, with estimated recoverable resources of 0.4 billion barrels of oil, will develop

discoveries in the Yoho and Awawa reservoirs in shallow water depths of 200-300 feet. By using a temporary floating, production, storage, and

offloading (FPSO) vessel as an early production system, first oil from Yoho came onstream almost two years ahead of full-field start-up. Production through the FPSO is expected to add more than 90,000 barrels of oil a day.

4d. CHEVRONTEXACO: FIRST OIL FROM CALEDONIA FIELD

Aberdeen, Scotland -- ChevronTexaco Upstream Europe, as operator, announced earlier this month the first oil from the Caledonia field located in block 16/26, approximately 130 miles north east of Aberdeen. ChevronTexaco Upstream Europe is a subsidiary of ChevronTexaco. Production from the North Sea well is expected to average 10,000 barrels per day over the first year with peak production of approximately 13,000 barrels per day achieved soon after startup. Further development of the field will depend on the future performance of this well. A spokesman said the field has been developed by means of a subsea template with a single production well tied back to the Britannia platform via a 3.5-mile, 8-inch pipeline. Caledonia partners have invested \$36.6 million in the project.

The well was drilled in the summer of 2002 by the semisubmersible drilling rig, Stena Spey, with subsea facilities installed during the same period. Modifications were made to the Britannia platform to allow Caledonia oil to be processed and exported via the Forties Pipeline System. A strong focus on safety from all companies involved resulted in an excellent project safety record.

5. SIGNIFICANT OTHER SCIENTIFIC DISCIPLINES

5a. SOLONS INTRODUCE NANOTECHNOLOGY BILL

Washington, D.C., USA - U.S. House of Representatives Science Committee chairman Sherwood Boehlert (R-New York) and Rep. Mike Honda (D-California)

recently introduced legislation that would authorize a national nanotechnology research initiative. Nanotechnology is the top interagency priority in the administration's fiscal 2004 proposed budget for non-medical, civilian scientific and technological research and development.

"Nanotechnology may be the 'smallest' field of science -- the manipulating of individual atoms. But I've come to understand that in science and technology, few things could actually be 'bigger' than nanotechnology -- in terms of its potential to revolutionize scientific and engineering research, improve human health, and bolster our economy," Boehlert said.

H.R. 766, the Nanotechnology Research & Development Act of 2002, authorizes

\$2.1 billion over three years for nanotechnology R&D programs at the U.S.

National Science Foundation, the Department of Energy, the Department of

Commerce, the National Aeronautics & Space Administration, and the Environmental Protection Agency. The bill provides a formal structure for coordination of research across the agencies, emphasizes interdisciplinary research, addresses societal concerns raised by nanotechnology, and requires outside reviews of the program. The text of the bill and a section-by-section can be found at the Science Committee website at <http://www.house.gov/science/>. For additional information on the federal government's nanotechnology research initiatives, log on to <http://www.nano.gov/>.

6. POSITIONS AVAILABLE

6a. DIRECTOR OF SALES

Watsonville, California, USA -- Triton Elics International Inc. is hiring for its growing California office. TEI is a worldwide leader in acoustic underwater imaging. Our sonar processing systems are used to scan the seafloor and produce imagery supporting search, survey, mapping, and ocean exploration for commercial and government clients worldwide. Our products are primarily based on the "wintel" architecture and are used for real-time data acquisition, conversion, processing, display, and storage of analog and digital sensor data.

Requirements: Proven track record of exceeding assigned revenue and profitability targets in a take-market-share environment. Five-plus years of experience selling software and/or hardware products related to underwater sensor systems is highly desirable. Sales experience with commercial software products running on wintel platforms is a definite plus. The successful candidate will direct overall efforts of our international sales staff while focusing on the growth of our domestic markets, both commercial and federal, and will be responsible for generating, qualifying, and closing sales leads; managing established accounts; and providing product training and application support. B.S. in engineering or computer science.

Please send resume to Triton Elics International Inc., 125 Westridge Drive, Watsonville, CA 95076; Fax +1 (831) 722-1405, e-mail hr@tritonelics.com.

7. EVENTS

7a. OCEAN STUDIES BOARD TO HOST OCEAN ENERGIES WORKSHOP

Washington, D.C., USA - Fans of ocean energy technologies and utilization should not miss this one-day workshop. The U.S. National Academies Ocean Studies Board has announced that it is holding the workshop on March 19, 2003, to discuss the feasibility, value and interest in conducting a National Academies study on the various forms of ocean energy technologies and their use in U.S. federal and state waters. The meeting is expected

to attract researchers, federal agency staff, congressional staff, non-profit groups, and industry representatives. Subjects covered include ocean energy conversion technologies, including wave energy, tidal current energy, OTEC, offshore wind energy, and salinity gradient energy conversion.

The meeting is scheduled for Wednesday, March 19, from 8:30 a.m. to 5:00 p.m. at the National Academy of Sciences, 2101 Constitution Avenue NW, Washington, D.C. Contact Denise Greene on +1 (202) 334-3456 or via dgreene@nas.edu for registration and information.

7b. MEETING TO PAVE WAY FOR E. ASIAN SEAS COLLABORATION

Diliman, Quezon City, Philippines -- Preparations are underway for the East

Asian Seas Congress 2003, which is being organized by the GEF/UNDP/IMO Regional Programme on Partnerships in Environmental Management for the Seas

of East Asia (PEMSEA). Spokeswoman Maria Cecilia T. San, technical assistant

for policy/legal analysis, Coastal & Ocean Governance Services for PEMSEA,

told Oceansp@ce the congress, slated for December 8-12, 2003, in Kuala Lumpur, Malaysia, is aimed at paving the way for a new level of

collaboration in the region. It will highlight two major events: the "Ministerial Forum on the Sustainable Development of the Seas of East Asia"

and the "International Conference on the Sustainable Development of the East

Asian Seas: Towards a New Era of Regional Collaboration and Partnerships."

The forum, she said, will provide a venue for concerned ministers and officials from the host country, Brunei Darussalam, Cambodia, the Peoples

Republic of China, the Democratic People's Republic of Korea, Indonesia, Japan, the Philippines, the Republic of Korea, Singapore, Thailand, and Vietnam. They are expected to consider innovative and sustainable regional

collaborative arrangements and financing mechanisms for strengthening regional coastal and ocean governance as obligated under Agenda 21 of UNCED

and in response to the recommendations of the WSSD and other related instruments. This high-level gathering, scheduled on December 12 to immediately follow the international conference, is expected to foster stronger partnerships between and among nations and to give rise to strengthened commitments to environmental management and sustainable development in the region.

The international conference, slated for December 8-11, will consist of plenary and workshop sessions focusing on two themes: (1) Review of International and National Efforts Towards Addressing the Main Sectoral Concerns regarding the Seas of East Asia and (2) Essential Cross-Sectoral

Approaches and Processes: Towards Achieving Sustainable Development. It is

geared toward policymakers, economists, environment and natural resource managers, NGO representatives, media practitioners, the academe, and other

members of civil society and the private sector. For more, contact Ms. San

at (632) 920-2211 to 2214 or via e-mail on mctsan@pemsea.org. Visit the website at <http://www.pemsea.org/>.

7c. NEW and/or IMMINENT MEETINGS

June 11-13, 2003, InWaterTec 2003, Kiel, Germany. Information and registration at <http://www.inwatertec2003.de/>.

July 16, 2003, Sensing and Mapping the Marine Environment from Near and Far, The Geological Society, London. Information and registration at <http://www.ims.plym.ac.uk/geomatics/sensemap/>.

7d. SPEARHEAD EXHIBITIONS MEETINGS

June 4-6, 2003, Oceanology International Americas 2003 Exhibition/The Oceanography Society Ocean Conference, Ernest N. Morial Convention Center, New Orleans, Louisiana. Information and FREE REGISTRATION at <http://www.oiamericas.com/>.

September 2-5, 2003, Offshore Europe 2003, Offshore Europe Partnership, Aberdeen, Scotland. Information and registration at <http://www.offshore-europe.co.uk/>.

September 9-12, 2003, DSEi 2003: Defence Systems & Equipment International, Exhibition Centre London (ExCeL), London Docklands. Information and registration at <http://www.dsei.co.uk/>.

September 24-25, 2003, UUVS: Fourth Unmanned Underwater Vehicle Showcase, Southampton Oceanography Centre, Southampton, Hampshire, U.K. Information and registration at <http://www.uuvs.net/> or contact Stuart Fraser of Spearhead Exhibitions at +44 (0)20 8949 9822.

March 16-19, 2004, Oceanology International 2004, Exhibition Centre London (ExCeL), London. Information at <http://www.oceanologyinternational.com/> or contact Spearhead Exhibitions Ltd. at +44 (0)20 8949 9222.

7e. OTHER MEETINGS [revised for FEBRUARY 28]

March 6-7, 2003, Communications and Software in Shipping, Singapore. Information and registration at <http://www.thedigitalship.com/singapore.htm>.

March 10-12, 2003, Second ADCPs in Action Seminar, Catamaran Resort Hotel, Mission Bay, San Diego, California. Information and registration at <http://www.rdinstruments.com/pressrel/pr042602.html> or contact Gina Lopez at glopez@rdinstruments.com.

March 13-15, 2003, IEEE Seventh Working Conference on Current Measurement Technology, Bahia Hotel, San Diego, California. Information and registration now available at <http://www.whoi.edu/science/AOPE/cmtc/>. Questions to Judith Rizoli White at jrizoli@whoi.edu.

March 14-15, 2003, 22nd Diving for Science Symposium of the American Academy of Underwater Sciences, Greenville Hilton, Greenville, North Carolina.. Information and registration at <http://www.aaus.org/>.

March 16-19, 2003, Third International Conference on Marine Bio-invasions, La Jolla, California. Information for abstract submission and registration at <http://www.sgmeet.com/mb/>.

March 16-21, 2003, Fourth Gordon Research Conference on Polar Marine Science, Sheraton Harbortown, Ventura, California. Information and registration at <http://www.grc.org/>.

March 24-26, 2003, Argos Animal Tracking Symposium, Radisson Hotel, Annapolis, Maryland. Information at <http://www.argosinc.com/aats.htm>; registration forms at <http://www.argosinc.com/documents/register.rtf>.

March 24-26, 2003, First International Conference on Maritime Heritage, Corinthia San Gorg Hotel, Malta. Information and registration at <http://www.wessex.ac.uk/conferences/2003/heritage03/>.

March 24-27, 2003, U.S. Hydro 2003 (sponsored by The Hydrographic Society of America), Beau Rivage Resort & Casino, Biloxi, Mississippi. Information and registration at <http://www.thsoa.org/>.

April 3-6, 2003, Sixth Underwater Science Symposium: Monitoring and Measuring the Underwater Environment, University of Aberdeen, Newburgh, Aberdeenshire, Scotland. Information from Jean Pritchard, Society for Underwater Technology, +44 (0)1224 823637 or jean.pritchard@sut.org.

April 6-10, 2003, International Oil Spill Conference, Vancouver Convention & Exhibition Centre, Vancouver, British Columbia, Canada. Information and registration at <http://www.iosc.org/index.htm>.

April 6-11, 2003, EGS-AGU-EUG Joint Assembly 2003, Nice, France. Information and registration at <http://www.copernicus.org/egsagueug/index.html>.

April 13-16, 2003, Inaugural National Conference on Coastal and Estuarine Habitat Restoration, Hyatt Regency Inner Harbor Hotel, Baltimore, Maryland. Information and registration at <http://www.estuaries.org/>.

April 14-16, 2003, Charting the Secret World of the Ocean Floor: The GEBCO Project, 1903-2003, Monaco. Information and registration at <http://www.ngdc.noaa.gov/mgg/gebco/gebco.html>.

April 28-May 2, 2003, 145th Acoustical Society of America Meeting, Nashville Convention Center, Nashville, Tennessee. Information and registration at <http://asa.aip.org/meetings.html>.

May 5-8, 2003, A Sea of Change: JGOFS Accomplishments and the Future of Ocean Biogeochemistry, National Academy of Sciences, Washington, D.C. Information requests and comments to mzawoysky@whoi.edu or roger.hanson@jgofs.uib.no. Program will be announced at <http://usjgofs.whoi.edu/> or <http://ads.smr.uib.no/jgofs/jgofs.htm>.

May 21-22, 2003, Third All-Energy Opportunities 2003 Conference &
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Exhibition, Aberdeen Exhibition & Conference Centre, Aberdeen, Scotland. Information and registration (later) at <http://www.all-energy.co.uk/> or call +44 (0)20 8241 1912.

June 3-6, 2003, Tenth International Caspian Oil & Gas Exhibition & Conference, Baku, Azerbaijan. Information and registration at <http://www.caspianevents.co.uk/>.

June 4-6, 2003, Oceanology International, the Americas 2003, Ernest N. Morial Convention Center, New Orleans, Louisiana. Information and registration at <http://www.oiamericas.com/>.

June 6-7, 2003, First EARSEL Workshop on Remote Sensing of the Coastal Zone, Het Pand Monastery, University of Ghent, Ghent, Belgium. Information and registration at http://las.physik.uni-oldenburg.de/projekte/earsel/1st_workshop.html.

June 8-13, 2003, OMAE 2003: 22nd International Conference on Offshore Mechanics & Arctic Engineering, American Society of Mechanical Engineers and the Instituto Mexicano del Petroleo, Cancun, Mexico. Information at <http://www.ome.org/> and at <http://www.asmeconferences.org/ome03/>.

June 11-13, 2003, InWaterTec 2003, Kiel, Germany. Information and registration at <http://www.inwatertec2003.de/>.

June 11-21, 2003, Habwatch workshop: Real-Time Coastal Observing Systems for Ecosystem Dynamics and Harmful Algal Blooms, Observatoire Oceanologique and Citadelle of Villefranche-sur-Mer, France. Information and registration at <http://www.habwatch.org/>.

June 15-20, 2003, The Gordon Research Conference on Permeable Sediments, Bates College, Lewiston, Maine. Information at <http://www.skiio.peachnet.edu/grc/>.

June 16-21, 2003, Ocean Mapping Group Multibeam Training Course, Southampton Oceanography Centre, Southampton, U.K. Information at <http://www.omg.unb.ca/mbc/> and registration forms available via e-mail to minnie@netsurvey.co.uk or lgee@ivs.unb.ca.

June 23-24, 2003, Law of the Sea workshop: Development of National Maritime Limits and the Application of Article 76, Radisson SAS Hotel Saga, Reykjavik, Iceland. Information and registration at <http://www.caris.com/workshops/iceland.html>.

June 24-27, 2003, Third International workshop on the Scientific Use of Submarine Cables & Related Technologies, Komaba Campus, University of Tokyo, Japan. Information from Professor Junzo Kasahara, kasa2@eri.u-tokyo.ac.jp; registration at <http://seasat.iis.u-tokyo.ac.jp/ssc03/>.

June 25-27, 2003, Conference on Legal and Scientific Aspects of Continental Shelf Limits (hosted by the Law of the Sea Institute of Iceland and the

Center for Oceans Law and Policy, University of Virginia), Reykjavik, Iceland. Information and registration at <http://www.virginia.edu/colp/>.

June 29-July 2, 2003, Sixth Regional Symposium, PACON 2003, Hotel Splendor
Kaohsiung, Kaohsiung, Taiwan. Information at
<http://www.hawaii.edu/pacon/>.

July 14-18, 2003, Association of Marine Laboratories of the Caribbean
31st
Scientific Meeting, Port-of-Spain, Trinidad. Information contact is Dr.
Steve LeGore, AMLC executive director, slegore@mindspring.com.

July 16, 2003, Sensing and Mapping the Marine Environment from Near and
Far,
The Geological Society, London. Information and registration at
<http://www.ims.plym.ac.uk/geomatics/sensemap/>.

August 24-27, 2003, 13th International Symposium on Unmanned Untethered
Submersible Technology, New England Center, University of New Hampshire.
Information at <http://www.ausi.org/uust/uust.html>.

September 2-5, 2003, Offshore Europe 2003, Offshore Europe Partnership,
Aberdeen, Scotland. Information and registration at
<http://www.offshore-europe.co.uk/>.

September 9-12, 2003, DSEi 2003: Defence Systems & Equipment
International,
Exhibition Centre London (ExCeL), London Docklands. Information and
registration at <http://www.dsei.co.uk/>.

September 22-26, 2003, Oceans 2003 Marine Technology & Ocean Science
Conference & Exhibition (Oceans 2003 MTS/IEEE), Town & Country Hotel &
Convention Center Complex, San Diego, California. Information and
registration (later) at <http://www.oceans2003.com/>.

October 6-10, 2003, 33rd Annual Conference of the Underwater Mining
Institute, Cheju Island, Korea. Information from Karynne Chong Morgan,
conference coordinator, at karynnem@hawaii.edu.

October 16-18, 2003, CoastGIS 2003: Fifth International Symposium on
Computer Mapping & Geographic Information Systems for Coastal Zone
Management, Genoa, Italy. Information at
<http://www.gisig.it/coastgis/>.

October 22-23, 2003, Waterfront Expo 2003, ExCeL, London. Information
and
registration at <http://www.waterfrontexpo.com/index.shtml>.

November 2-5, 2003, 8th Estuarine & Coastal Modeling Conference (ECM8),
Monterey Hyatt, Monterey, California. Information and registration at
<http://www.oce.uri.edu/ecm8/>.

November 17-20, 2003, Shallow Survey 2003, Sydney, Australia.
Information
at <http://www.dst.defence.gov.au/corporate/conferences/swsurvey/>.

November 18-21, 2003, CARIS 2003 "Gateways in Geomatics," St. Louis,
Missouri. Information and registration at
<http://www.caris.com/caris2003/>.

November 24-26, 2003, Hydro 2003: Fourth Australasian Hydrographic
Symposium, Holiday Inn, Christchurch, New Zealand. Information and

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registration from Wendy Barker at wendybarker@extra.co.nz or visit <http://www.hydrographicociety.org.nz/conference.htm>.

December 8-12, 2003, East Asian Seas Congress 2003, Kuala Lumpur, Malaysia.

For information, contact congress@pemsea.org or visit <http://way.to/seascongress/>.

YEAR AFTER THAT

February 3-6, 2004, Pacific 2004: International Maritime & Naval Exposition

for the Asia Pacific, Sydney Convention & Exhibition Centre, Darling Harbour, Sydney, Australia. Information contact at pacific@maritime.net.au; or visit <http://www.pacific2004.com.au/>.

March 16-19, 2004, Oceanology International 2004, Exhibition Centre London (EXCeL), London. Information at <http://www.oceanologyinternational.com/> or contact Spearhead Exhibitions Ltd. at +44 (0)20 8949 9222.

April 20-23, 2004, IEEE Underwater Technology 2004, The Howard International House, Taipei, Taiwan. Information and abstract submission at <http://www.ut.na.ntu.edu.tw/uto4/>.

November 9-12, 2004, MTS/IEEE Oceans/Techno-Ocean 2004, Kobe, Japan. Information at <http://www.oceans-technoocean2004.com/>.

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TO:Margot.Anderson@hq.doe.gov (Margot.Anderson@hq.doe.gov [UNKNOWN])
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TO:David Halpern (CN=David Halpern/OU=OSTP/O=EOP@EOP [OSTP])
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TO:mary.glackin@noaa.gov (mary.glackin@noaa.gov [UNKNOWN])
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TO:linda.lawson@ost.dot.gov (linda.lawson@ost.dot.gov [UNKNOWN])
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TO:slimak.michael@epa.gov (slimak.michael@epa.gov [UNKNOWN])
READ:UNKNOWN

TO:mmoore@osophs.dhhs.gov (mmooore@osophs.dhhs.gov [CEA])
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TO:gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

TO:cgroat@usgs.gov (cgroat@usgs.gov [UNKNOWN])
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TO:Whohenst@OCE.USDA.gov (whohenst@OCE.USDA.gov [UNKNOWN])
Page 1

003255

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READ:UNKNOWN

CC:jeff.amthor@noaa.gov (jeff.amthor@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:djwhite@nsf.gov (djwhite@nsf.gov [UNKNOWN])
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CC:Kathy.Holmes@science.doe.gov (Kathy.Holmes@science.doe.gov [UNKNOWN])
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CC:turekianvc@state.gov (turekianvc@state.gov [UNKNOWN])
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CC:sambrose@hq.nasa.gov (sambrose@hq.nasa.gov [UNKNOWN])
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CC:VGorsevski@usaid.gov (VGorsevski@usaid.gov [UNKNOWN])
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CC:Jack.Kaye@hq.nasa.gov (Jack.Kaye@hq.nasa.gov [UNKNOWN])
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CC:vicki.horton@noaa.gov (vicki.horton@noaa.gov [UNKNOWN])
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CC:talleyt@state.gov (talleyt@state.gov [UNKNOWN])
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CC:mgarcia@usgs.gov (mgarcia@usgs.gov [UNKNOWN])
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CC:Jerry.Elwood@science.doe.gov (Jerry.Elwood@science.doe.gov [UNKNOWN])
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CC:kbarrett@usaid.gov (kbarrett@usaid.gov [UNKNOWN])
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CC:tspence@nsf.gov (tspence@nsf.gov [UNKNOWN])
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CC:James.R.Mahoney@noaa.gov (James.R.Mahoney@noaa.gov [UNKNOWN])
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TEXT:

0313_f_z0cce003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 3-MAR-2003 17:42:29.00

SUBJECT:: FYI - NRC response to The Guardian article on Draft CCSP Strategic Plan

TO: Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP@EOP [CEQ])

READ: UNKNOWN

TEXT:

----- Forwarded by Phil Cooney/CEQ/EOP on 03/03/2003
05:42 PM -----

Stephanie Harrington <Stephanie.Harrington@noaa.gov>
02/28/2003 03:09:03 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: FYI - NRC response to The Guardian article on Draft CCSP
Strategic Plan

On behalf of Dr. Mahoney, I am forwarding you the NRC response to the
February 27, 2003, article in
The Guardian (UK) on the recently released NRC report on the Discussion
Draft Strategic Plan on the
U.S. Climate Change Science Program. Please see the attached pdf file for
the NRC response.

The original article can be found at the following URL or in the text
below:
<http://www.guardian.co.uk/climatechange/story/0,12374,903609,00.html>

Please let me know if you have any questions,
Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944

Advisers tell Bush climate plan is useless

Strategy 'lacks vision, goals, timetable and criteria'

Oliver Burkeman in Washington
Thursday February 27, 2003
The Guardian

George Bush's strategy on global warming suffered a setback yesterday when
a panel of scientists
convened at the request of the white House condemned it as lacking vision,
and wasting time and
money on research questions that were resolved years ago.

Mr Bush's plan, introduced after the US backed out of the Kyoto protocol,
replaces that treaty's
call for mandatory limits on greenhouse gas emissions with a decade-long
programme of research to
determine the scale of the problem.

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003255

CEQ 004495

But the 17 environmental experts, assembled by the National Academy of Sciences at the president's request, said in their report that the president's strategy "lacks most of the basic elements of a strategic plan: a guiding vision, executable goals, clear timetables and criteria for measuring progress", and misses the opportunity to cooperate more with other countries on research.

"I've been doing ecosystems science for 30 years, and we know what we know and what we don't know," William Schlesinger, a panel member, told the Guardian. "Rather than focusing on the things we don't know, it's almost as if parts of the plan were written by people who are totally unfamiliar with where ecosystems science is coming from.

"They say we ought to be monitoring methane in remote regions," said Dr Schlesinger, the dean of Duke University's Nicholas School of the Environment and Earth Sciences in Durham, North Carolina. "Well, we've been monitoring some of these things for 30 years, and there's no question that the levels are rising."

The Bush plan also urges, for example, more research on how carbon emissions are affected by forest fires, a question largely seen as resolved within the academy.

"They didn't set the hard priorities," said Michael Prather, an earth scientist from the University of California at Irvine and a panel member. "From the scientists' point of view, we have a pretty good idea of what is happening."

The experts also call for "greatly increased" spending on addressing climate change, far above the \$1.7bn per year earmarked. They concede that the plan is "a solid foundation", going further towards formulating a strategy on global warming research - as required by a 1990 act of Congress - than either the first President Bush or Bill Clinton.

James Mahoney, director of the government's climate change science programme, which is charged with executing the plan, said he welcomed the panel's criticisms. "Nobody ever undertook to do something like this before. There are certainly areas where we need to improve," he said. "But we're in a process where we pushed to very quickly turn around a battleship, and we've never had a plan before."

But the scientists' findings may cause concern in the administration in the few weeks of the consultation period that remain, not least because the panel included experts from corporations including BP and Honeywell.

Mr Bush has been accused of claiming that more research is needed in order to stall moves towards limiting US greenhouse gas emissions. Environmental groups accuse the oil

company Exxon Mobil of leading a campaign in the US to discredit scientific findings suggesting that the dangers of global warming are grave.

"There's no question that if you claim that not much is known, even if it is, then you delay the time at which you can say, OK, the research is unequivocal and we need to do something about the problem," Dr Schlesinger said. "It's not very far beneath the surface that there's an element of not taking any action here."

- Guardian Letter to the Editor 02-28-03.pdf

Message Sent

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===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

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TEXT:

Unable to convert NSREOP0102:[ATTACH.D27]SREOP01300ECC0Z.001 to ASCII,
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===== END ATTACHMENT 1 =====

From: Christopher Eisenbrey
To: Fang, Bill
Date: 3/5/03 5:59PM
Subject: Reductions by Project only, Entity only and Both Project and Entity

Bill:

Here is what I was able to determine from the 2001 reports:

Total Reporters:

Projects only: 130.4 MMTCO2
Entity only: 11.8 MMTCO2
Both: Projects: 185.3 MMTCO2 / Entities: 193.3 MMTCO2

Electric Power Sector Reporters:

Projects only: 93.3 MMTCO2
Entity only: 2.3 MMTCO2
Both: Projects: 157.2 MMTCO2 / Entities: 163.8 MMTCO2

This should do the trick. Feel free to call me should you have any questions.

Chris

CEQ 182 AC



U.S. Environmental Protection Agency
Office of Environmental Information
1200 Pennsylvania Avenue, NW (MC 2810A)
Washington, DC 20460

Telephone Number: (202) 564-6665
Fax Number: (202) 501-1622

Date: 3/5/03

Time: _____

To: Phil Cooney

Fax No. 456-2710

Comments:

per: Kari Nelson

Number of pages (including cover sheet): _____

10 February 2003

Office of Environmental Information
Information Quality Guidelines Staff, Mail Code 28221T
United States Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

**Re: Request for Response to/Renewal of Federal Data Quality Act Petition
Against Further Dissemination of 'Climate Action Report 2002' ("RFC")**

Dear Information Officer,

Pursuant to our 4 June 2002 "Petition under Federal Data Quality Act (FDQA) To Prohibit Further Dissemination of 'Climate Action Report 2002' (CAR)" (attached), we write 1) seeking a substantive response to that Petition, and 2) to formally renew our pending request for "correction" of CAR's fatal data flaws (ceasing dissemination).

As CEI detailed both in its Petition and subsequent Comments on EPA's Proposed FDQA Guidelines (also attached), the White House Office of Management and Budget's (OMB) Interim Final Guidelines for agency compliance with FDQA requirements (66 FR 49718), finalized by OMB's January 3, 2002 Final Guidance (67 FR 369), were expressly "government-wide" (see FDQA Section 515(b)(1)). We continue our proceeding under EPA's finalized "*Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency*", as an "RFC", to the extent these Guidelines further and are not in conflict with OMB's government-wide guidelines and/or FDQA.

As also earlier detailed, particularly in CEI's Comments, to the extent that the United States EPA or any subdivision, branch, or office thereof cites, refers or links to, or otherwise disseminates the CAR (<http://www.epa.gov/globalwarming/publications/car/index.html>), as a product of, *inter alia*, EPA, it is in violation of the FDQA. This is because CAR cites, relies on, and further disseminates data failing to meet FDQA's requirements (see esp. CAR "Chapter 6"). Specifically, CAR disseminates the first National Assessment on Climate Change ("National Assessment" or "NACC") (<http://www.usgcrp.gov/usgcrp/nacc/default.htm>), in violation of FDQA.

This Request, incorporating by reference and attachment both referenced prior submissions, formally reiterates the request that EPA immediately remove all electronic dissemination and cease other dissemination of the CAR, because CAR fails to meet

FDQA's requirements for the same reasons that NACC fails FDQA's requirements and, in relying in significant part upon NACC and re-circulating the discredited data as CAR Chapter 6, in effect constitutes dissemination of the impermissible NACC.

As detailed (attached), FDQA prohibits – and therefore, EPA must cease -- dissemination of CAR as the sole feasible "correction" given the errors' endemic nature and CAR's reliance upon and dissemination of the findings of the National Assessment (NACC), because of that document's rampant violations of the data quality requirements of "objectivity" (whether the disseminated information is presented in an *accurate, clear, complete* and *unbiased* manner and is as a matter of substance *accurate, reliable* and *unbiased*), and "utility" (the *usefulness* of the information to the *intended users* (per the US Global Change Act of 1990, these are Congress and the Executive Branch).

This invokes NACC's and therefore CAR's inappropriate use of and reliance upon computer models and data that upon scrutiny are demonstrably meaningless. Further, in developing the published version of NACC which CAR relies upon and further disseminates, the US Global Change Research Program (USGCRP) also admittedly failed to perform the necessary science underlying regional and sectoral analyses (that Congress contemporaneously notified USGCRP was a condition precedent to the release of even a draft National Assessment). FDQA ratifies those objections, and is violated by continued dissemination of this product by any federal agency.

As the statutorily designated steering document for policymaking – despite that the particular document at issue admittedly failed to complete the statutory mission required to qualify as a "National Assessment," and was disavowed by the White House Office of Science and Technology Policy in order to resolve litigation also brought by, *inter alia*, CEI -- NACC qualifies as "influential scientific or statistical information" for purposes of FDQA. Therefore it must meet a "reproducibility" standard, setting forth transparency regarding data and methods of analysis, "as a quality standard above and beyond some peer review quality standards."

Pursuant to these prior filings and specifically CEI's pending Petition/RFC, CEI reiterates its request that EPA immediately comply with FDQA and cease dissemination of the National Assessment on Climate Change in whole or part and in any form including any product relying on NACC, e.g., Climate Action Report. We therefore also request that you notify us at your earliest convenience of EPA's substantive response to the violations set forth in this series of communications and the docket number assigned.

Please do not hesitate to contact me with any questions.

Sincerely,

Christopher C. Horner

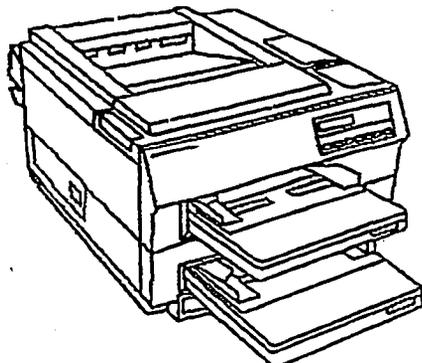
enc

Washington D.C. 20004-2696
Telephone 202-508-5000



EDISON ELECTRIC
INSTITUTE

TELECOPIER TRANSMITTAL FORM



DATE: March 5, 2003

TO: Philip A. Cooney, Esq.

COMPANY: Council on Environmental Quality

TELECOPIER NUMBER: 202/456-2710

NUMBER OF PAGES INCLUDING TRANSMITTAL FORM: 24

FROM: Jim Mitchell

TELEPHONE NUMBER: 202/508-5453

NOTE: IF YOU DO NOT RECEIVE ALL OF THE ABOVE MENTIONED NUMBER OF PAGES, PLEASE CALL THE PERSON MENTIONED ABOVE:

COMMENTS:

March 5, 2003

Jean E. Vernet, Esq.
Office of Policy and International Affairs
Office of Electricity and Natural Gas Analysis
U.S. Department of Energy
Forrestal Building, PI-23
Room 7H-O34
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Attention: Voluntary Reporting Comments

Dear Ms. Vernet:

The Electric Power Industry Climate Initiative (EPICI) respectfully submits additional comments relevant to the consideration and development by the Department of Energy (DOE) and Energy Information Administration (EIA) of revised guidelines and an improved data base/registry under section 1605(b) of the Energy Policy Act of 1992 (EPAct). These comments are intended to supplement EPICI's earlier comments to Assistant Secretary Vicki A. Bailey of April 17, 2002, and our comments to you of June 5, 2002, and September 25, 2002.

As you may be aware, the power sector accounted for nearly half of all reports under EPAct section 1605(b) in 2000 and 2001, and more importantly, 70-79 percent of total reported emission reductions, avoidances and sequestrations in those years.

We take this opportunity to express our appreciation to all of the officials and staff of DOE, EIA and other federal agencies that organized the several workshops in Chicago, Houston, San Francisco and the Washington, D.C. area from November 2002-January 2003 and prepared the transcripts thereof. They were all very informative and well run. We particularly commend the facilitator of the workshops for a job well done.

We have reviewed the workshop transcripts and the other relevant materials included with them as well as recent submittals to the docket. We note that at the November 18, 2002, workshop, the deadline for written comments was extended "indefinitely." The primary purposes of this letter, the enclosure and attachments are to:

- Make it abundantly clear that the ability of the power sector to meet the goals that it expressed in its climate action plans to DOE Secretary Spencer Abraham prior to February 12, 2003, is directly linked to the design of the reporting reforms embodied in the revised guidelines and improved registry.
- Highlight and clarify our positions on several policy matters that need to be resolved in order to support the power sector's voluntary goals and programs.

Jean E. Vernet, Esq.
March 5, 2003
Page 3

in the development of what we called the "robust reporting" concept in our earlier comments regarding how information is developed and reported. We noted that under this concept, "reporting entities would have flexibility on the choice of baselines and methodologies for estimating the emissions reductions, and may elect to self certify," as specifically provided in section 1605(b), "or validate the report through other means." We added that "in all cases, the reporting requirement would be focused on 'full disclosure,' i.e., providing detailed documentation to support the information reported in the registry." In this regard, we note that in the opening remarks at the November 2002 workshop, the voluntary nature of the program was reiterated, as was the fact that the program is based on the statutory provisions of section 1605(b) that themselves offer considerable flexibility. At the same time, it was stated that there is a "need to balance rigor with practicality" (i.e., if it "isn't practical and cost effective for our reporters, we're not likely to have very many reporters"). We agree. Such a "balance" is imperative if DOE is to accomplish the President's directives and achieve his goal of reducing, avoiding and sequestering as many tons of GHGs as possible in improving the nation's GHG intensity.

Enclosed are our supplemental comments and two attachments for the docket. We look forward to continuing discussions with the White House, DOE, EIA and other departments and agencies on these and other issues.

Sincerely yours,

Robert P. Gehri / by W.L. Farg

Robert P. Gehri
Co-chairman, Electric Power Industry
Climate Initiative
Southern Company

Enclosure

WLF:wg

cc (w/ enc & atts):

Hon. Vicki A. Bailey, Assistant Secretary,
DOE Office of Policy and International Affairs
Margot Anderson, Deputy Assistant Secretary,
DOE Office of Policy
Larisa Dobriansky, Esq., Deputy Assistant Secretary,
DOE Office of Policy and International Affairs
Al Cobb, Senior Advisor,
DOE Office of the Assistant Secretary, OPIA
Dr. Richard A. Bradley, Chief Advisor for Global Change,
DOE Office of Policy and International Affairs
David Hill, Deputy General Counsel for Policy,
DOE Office of General Counsel

Jean E. Vernet, Esq.
March 5, 2003
Page 4

Dr. Paul A. McCardle, Program Manager,
Energy Information Administration
Dr. Harlan L. Watson, Senior Climate Negotiator
and Special Representative,
U.S. Department of State
James L. Connaughton, Esq., Chairman,
Council on Environmental Quality
Philip A. Cooney, Esq., Chief of Staff
Council on Environmental Quality
John Graham, Administrator,
OMB Office of Information and Regulatory Affairs
Marcus Peacock, Associate Director,
OMB Natural Resources, Energy and Science

Enclosure

EPICI Positions on Key Policy Issues in Revising EPO Act
Section 1605(b) DOE Guidelines and EIA Registry

In his February 14, 2002, policy statement, the President called the registry a "tool for companies to publicly record their progress in reducing emissions, providing public recognition of a company's accomplishments, and a record of mitigation efforts for future policy design." He said that this "tool goes hand-in-hand with voluntary business challenges" (emphasis added), which he also discussed on February 14, "by providing a standardized, credible vehicle for reporting and recognizing progress." He added that even though businesses can now register emissions reduced under section 1605(b) of EPO Act, "participation has been limited." Accordingly, he proposed "improvements" in the 1605(b) guidelines that "will enhance measurement accuracy, reliability and verifiability, working with and taking into account emerging domestic and international approaches." As to an enhanced registry, he said it "will promote the identification and expansion of innovative and effective ways to reduce greenhouse gases" and it "will encourage participation."¹

When he issued his policy statement, the President was aware of the provisions of EPO Act and section 1605(b) – a provision in title XVI, titled "Global Climate Change" – and saw the opportunity to relate it to his challenge to American businesses and industries to "reduce greenhouse gas emissions" through "broader agreements and greater reductions."² In calling section 1605(b) a "tool" that "goes hand-in-hand" with his "voluntary businesses challenges," the President clearly linked the two programs.

The Electric Power Industry Climate Initiative (EPICI) places great importance on the revised Energy Policy Act (EPO Act) section 1605(b) guidelines and the improved Energy Information Administration (EIA) registry and revised reporting forms in facilitating the six climate action plans that our seven organizations have submitted to the government. For example, in its letter of January 17, 2003, to Department of Energy (DOE) Secretary Spencer Abraham, the Edison Electric Institute (EEI) stated (p. 2) that its voluntary numeric "goal will be achievable only if all EPICI trade groups and their members – with government support and appropriate policies – work together to implement robust supply- and demand-side actions as well as offset policies" (emphasis added). In addressing the "critical area of government policies," EEI in Enclosure 1 to its letter added, "Reporting reforms under Energy Policy Act . . . section 1605(b) are critical to industry participation in voluntary programs." More specifically, we address the following key policy issues:

¹ "U.S. Climate Change Strategy, A New Approach," Part 2, p. 9.

² *Id.* at Part 3, p. 14.

1. The need for a unitary federal reporting system for voluntary programs

EPICI does not believe that voluntary climate program would be well served by a federal reporting system fragmented into compartmentalized or non-complementary systems. Given President Bush's emphasis on a greenhouse gas (GHG) intensity metric that accommodates economic growth, the EPAAct section 1605(b) reporting system should not be divided into one registry that focuses on GHG/carbon intensity and another that focuses on absolute reductions. The fundamental problem with a reporting system that would feature a tier of absolute reductions (eligible for transferable credits) reported solely on an entity-wide basis is that it would be inconsistent with the President's climate policy, which emphasizes reducing GHG intensity, not achieving absolute GHG reductions.

Focusing exclusively on entity-wide reporting is objectionable for a number of reasons:

- The EPAAct section 1605(b) reporting system is aimed at encouraging and facilitating the voluntary reporting of "information" on GHG emissions and emission reductions, avoidances and sequestrations, whether obtained through projects or entities. This voluntary system is compatible with the President's national climate policy, which is focused on reducing GHG intensity and accommodating economic growth, not on achieving net reductions by entities. There are no treaty or statutory requirements applicable in the U.S. establishing a cap on GHG emissions that would warrant even consideration of entity-wide reporting.
- The four-agency letter of July 8, 2002, included with its recommendations encouragement of "corporate or entity-wide reporting," while being silent on the issue of whether that reporting should be limited to the U.S. However, that letter wisely recognized that "many important prospective actions . . . may be difficult to accommodate within the context of entity-wide emissions reporting." It added that while encouraging entity-wide reporting, the guidelines should also allow "opportunities to report by projects," acknowledging "the importance of recognizing a broad range of actions and facilitating cost effective ways to reduce direct and indirect emissions." Encouraging entity-wide reporting may be appropriate. However, establishing it as the exclusive or even predominant means of reporting would be inappropriate.
- Therefore, we are concerned about suggestions by some commenters at the DOE workshops that in revising the 1605(b) guidelines, DOE should narrow the existing reporting guidelines to provide for entity-wide reporting only and limit such reporting to the U.S. only. A narrowing of the section 1605(b) "tool" would discourage the "participation" that the President seeks, could seriously harm – if not break – the linkage that the President also spoke of between this "tool" and the voluntary Business Challenges, and would be inconsistent with EPAAct.

- Nowhere is this linkage more apparent than in the Business Challenge letter of January 17, 2003, from EEI to DOE Secretary Spencer Abraham, where EEI said that activities “pledged. . . will include individual company actions – whether undertaken by EEI, NEI [Nuclear Energy Institute], EPSA [Electric Power Supply Association] or any other group – and joint, industry-wide initiatives.” In support of the individual company actions, EEI pointed to the “Power Partners Resource Guide, which will set forth a panoply of supply- and demand-side options for companies to consider in order to reduce, avoid, and sequester GHGs.” These actions will include projects, both international and domestic. In addition, the EEI letter included in Enclosure 2 “Contributions from EEI and EPRI Industry-Wide Initiatives.”

Success of our “Power Partners” response to the President’s Business Challenge initiative would be severely jeopardized by an entity-wide reporting system and a reporting approach limited to reporting of activities that reduce, avoid and sequester GHGs in the U.S. only. As noted in Enclosure 1 to the EEI letter to the Secretary, reporting “reforms” under section 1605(b) “are critical to industry participation in voluntary programs.” That enclosure listed some of the reforms that we were aware of and view as critical. However, that list was not exhaustive. Clearly, so-called reform proposals, such as entity-wide reporting and limiting the reporting to the U.S., that attempt to reconstitute and constrict the existing guidelines are just as “critical to industry participation.”

- Moreover, such narrowing of the section 1605(b) guidelines would not be consistent with either title XVI of EPAct generally – which, as noted above, is about “Global Climate Change,” not U.S. climate change – or with section 1605(b), which is a part of title XVI. Section 1605(b) is not directed at the establishment of an inventory through entity-wide reporting. That is a role that EIA plays under EPAct section 1605(a), which directs the Secretary, through EIA, to “develop, based on data available to, and obtained by,” EIA, “an inventory of the national aggregate emissions” of GHGs for a baseline period of 1987-1990 and to “annually update and analyze such inventory using available data.” EIA has issued the report – Emissions of Greenhouse Gases in the United States – every year since 1993.

The last sentence of section 1605(a) provides that the subsection “does not provide any new data collection authority.” Thus, in using that report EIA must use available data, and its inventory is based on estimates, not collected emissions. Indeed, the preface to the most recent EIA report for GHG emissions for 2001, dated December 2002, stated:

This report – the tenth annual report, as required by law – presents the Energy Information Administration’s latest estimates of emissions for carbon dioxide, methane, nitrous oxides, and other greenhouse gases. These estimates are based on activity data and applied emissions factors and not on measured or metered emissions monitoring.”

P. iii (emphases added).³

³ Although styled as an "Inventory of U.S. Greenhouse Gas Emissions and Sinks," the annual report of the U.S. submitted pursuant to Decision 3/CP.1 of the Conference of the Parties to the United Nations Framework Convention on Climate Change (FCCC), is also an estimate of emissions and not truly an inventory (see FCCC/CP/1995/7/Add.1). Decision 3/CP.1, in requesting Annex I Parties to submit to the FCCC Secretariat national "inventory data on emissions," recognized "that for some greenhouse gases and sectors or activities annual data may be less readily available or less relevant . . ." The report was previously submitted by the State Department, but is now prepared by the Environmental Protection Agency (EPA).

According to the EPA letter of June 25, 1998, to the House Committee on Science, the U.S. annual report of April 2002 was prepared pursuant to section 1103 of the Global Climate Protection Act of 1987 (15 U.S.C. § 2901) and sections 103(b)(6) and (c)(2) of the Clean Air Act (42 U.S.C. §§ 7403(b)(6), (c)(2)). The Executive Summary stated (p. ES-1) that "the U.S. emissions inventory is comparable to those of other UNFCCC signatory countries" and the "estimates presented here were calculated using methodologies consistent with those recommended" (emphasis added) by the Intergovernmental Panel on Climate Change. It added, "For most source categories, the IPCC default methodologies were expanded, resulting in a more comprehensive and detailed estimate of emissions" (emphasis added). The EPA also told the House Science Committee that "numerous statistical and informational databases compiled by all levels of government, trade and research associations, and other public and private institutions provide the raw data inputs required to estimate the emissions by sources and removals by sinks of greenhouse gases" (emphasis added). The letter also said:

In 1994, the Energy Information Administration (EIA) and the EPA entered into a memorandum of understanding to coordinate our respective emission inventory activities. The EIA gathers and compiles detailed information on energy production and consumption, which forms the foundation for the energy-related greenhouse gas estimates. The EIA also reports on the carbon content of fossil fuels consumed in the U.S., developing emission factors that relate carbon emissions to fuel quantity burned.

* * * *

Uncertainties in our national emission estimates stem from our inability to actually measure emissions from each source; instead we collect data and measurements from a limited set of statistically representative sources and extrapolate the results to obtain national estimates.

(Emphases added.)

In the case of section 1605(b), the Secretary is to issue, pursuant to subsection 1605(b)(1), guidelines establishing "procedures" for the "voluntary reporting of information" on GHG emissions; reductions "achieved through any measures" annually, "including" forest management practices, tree planting and energy efficiency; reductions "achieved" as a result of plant or facility closings" and "State or Federal requirements"; and "an aggregate calculation" of GHG emissions "by each reporting entity." Subsection 1605(b)(2) provides that EIA will issue forms to "entities that wish to report such information" and that "[p]ersons reporting under this subsection shall certify the accuracy of the information reported."

- The term "information" is all-encompassing. It certainly allows for entity-wide reporting, but it is not limited to such reporting, nor is it limited to reporting solely on the domestic level.

The reference to "any measures," coupled with the word "including," is equally broad and not limiting. Similarly, there is a reference to plants and facilities, and the voluntary reporters can be an entity or persons. Finally, the "database" or registry is to be "comprised of information voluntarily reported" by such entities or persons, which, as noted, can be emissions, reductions or an "aggregate calculation" of GHG emissions.

- Participation in voluntary programs and projects would suffer if reporting under EAct section 1605(b) were restricted exclusively to entities. As indicated in the annual EIA report discussed in section 4 below, a substantial amount of the reported emissions reductions, avoidances and sequestrations is project-based. (Further policy reasons supporting project-based reporting are discussed in section 5 below.)

It is in this broad context that EEI and its partners have submitted their letters to DOE under the Business Challenge program. We expect that in improving the guidelines, as called for by the President, to "enhance measurement accuracy, reliability and verifiability" the section 1605(b) "tool" will continue to meet our understanding and expectations, encourage participation, and not limit or narrow the current guidelines.

We continue to believe that the enhancement of the data base/registry and improvement of the guidelines merit maximum flexibility and accommodation of different reporting purposes. The modified reporting system should encourage participation to the maximum extent possible, consistent with the need to develop provisions on transferable credit, baseline protection and credit for past actions. DOE and EIA should remember that they are refining an existing, workable national and federal registry, and that this effort should not be governed by, or overly concerned with, any single need or purpose.

2. Robust reporting vs. tiering

We also draw your attention to an overall design concept, "*robust reporting*," that would enhance the reliability and transparency of the data base. Under this concept, reporters

have broad flexibility to develop the numbers or other information in the manner that they deem most appropriate, but the guidelines' "procedures" would specify in-depth details on how the reported numbers were developed.

Under this concept, reporting entities would provide greater details on baseline emissions, project descriptions, and estimates of GHG reductions, avoidances and sequestrations. In addition, the extent of the details to be reported would be expanded from the current EPAAct section 1605(b) guidelines. Although the current guidelines describe a broad scope of reporting, the number of required elements in the reports is limited. This lack of full reporting may affect the reliability and transparency of some information in the current data base.

However, the critical difference between this concept and the tiered approach advocated by some lies in the extent of the provisions for how the reported information is developed. The distinction between what information is reported and prescriptive requirements as to how the reported information is developed is important.

- With the "robust reporting" concept, reporting entities would have flexibility on the choice of baselines and methodologies for estimating the emissions reductions, and may elect either to self-certify or to validate the report through other means. However, in all cases, the reporting would be focused on "full disclosure," *i.e.*, providing detailed documentation to support the information reported in the registry. Under this concept, the minimum reporting criteria would be expanded beyond those in the existing guidelines.
- With a tiering approach, the government could prescriptively specify the baseline assumptions, the methodologies for estimating emissions reductions, and the procedures for monitoring and verification for each "level" of reporting. Entities would have to follow all requirements in reporting to the registry. Such prescription and requirements are inconsistent with the concept of guidelines embodied in section 1605(b).

We believe that the flexibility offered by robust reporting is more consistent with the concept of guidance and the voluntary nature of the system under EPAAct section 1605(b), and is the best way to accommodate the full range of purposes of reporting and types of information to be reported. Such flexibility would also be beneficial to the potentially broad range of uses for the information reported. Providing greater details improves transparency, thus enabling markets to work and informing public debate and decision-making. In particular, robust reporting is advantageous because it:

- Is consistent with the broad, voluntary nature of the registry as characterized in the original legislation. Incorporating a more stringent, tiered set of specific quantification and reporting requirements would inject significant rigidity into the system and would discourage participation.

- Would continue to allow reporters the flexibility to develop their data in a way that is appropriate for their purposes, which could include sharing information on their activities, highlighting contributions to the Administration's GHG intensity goal, transferable credits⁴ and baseline protection.
- Encourages the innovation needed to learn about how to address issues associated with quantification, which include practical determination of baselines, setting appropriate project boundaries and accounting for leakage. This is particularly important for fostering learning about quantification of reductions for activities and sectors where there may be little or no experience to date, and for enabling the registry to serve as the reporting vehicle for "Climate VISION" as well as other voluntary initiatives.⁵
- Does not inhibit the market for transferring GHG reductions, avoidances and sequestrations, because this market already is evolving without the existence of uniform requirements for credits. Issues related to the degree of rigor in determining the reported emissions reductions, including leakage and verification, are being addressed through the operation of market forces in the process of valuation of the credit (*i.e.*, credits with less rigorous quantification and verification procedures have a lower market value).
- Allows the U.S. to gain the additional experience with GHG credits that is still needed before any more formal, future policy may be established. There is no consensus as to the best way to do this technically. Even in countries where mandatory requirements are in place or under development, approaches vary widely and inconsistencies across systems abound.
- Allows reporters to provide a wide-range of "information," not just numbers.

Expanded discussion of robust reporting may be found in the EPICI paper, "1605(b) Reporting Concept," filed on June 5, 2002.

On the other hand, the revised guidelines under EPAAct section 1605(b) should not include a tiered structure because:

⁴ Those that wish to acquire transferable credits do so for a variety of reasons, which may include public relations benefits; hedging against some potential, future climate policy; and enhancing a plan to contribute to the Administration's GHG intensity reduction goal.

⁵ Initially, 88 percent of the reporters under EPAAct section 1605(b) were electric utilities. While reporting by others has increased in recent years, electric generators still comprise nearly half of the reporters. Thus, much of the experience and public debate to date has focused largely on the electric generating sector. However, it should be kept in mind that the registry is national in scope and needs to accommodate reporting by all industries and economic sectors.

- Setting tiered requirements would inject significant rigidity into a system that needs to maintain maximum flexibility in order to accommodate the myriad of reasons for reporting.
- Tiering is tantamount to prejudging future climate policy.
- Tiering would create an environment for confusing the quality of the measurement and reporting with the credibility and quality of the actions.
- Tiering would set up a dynamic that encourages simplistic generalizations (*i.e.*, if an entity is in the top tier, it is "good"; if it is in any other tier, it is inadequate), rather than one that encourages knowledge and understanding.
- Tiering would create a strong disincentive to report for entities that do not meet the criteria for the highest tier. There is no reason to report to a lower tier, only to be judged inadequate.
- Tiering would narrow incentives for entities to improve their reporting and measurement. If an entity is currently reporting to a lower tier, and cannot meet all of the criteria for moving up to the next higher tier, there is no incentive to improve along any dimension (since the entity would still remain in the current tier).
- Section 1605(b) applies to "persons" as well as entities. Such persons should be encouraged to report and not be burdened by provisions that would apply to entities.

In summary, we believe that introducing a tiered structure into the EPA Act section 1605(b) reporting system would be counterproductive to the goals of the Climate VISION program, while adopting a "robust reporting" approach would support the program's goals while improving the transparency of the data base.

3. Recognition of transferable credits and baseline protection

Transferable credits and baseline protection should be recognized as valid but separate concepts.

- The Administration's February 14, 2002, policy statement clearly stated (Part 2, p. 9) that the "President directed the Secretary of Energy to recommend reforms" of the EPA Act section 1605(b) guidelines and national data base/registry "to ensure that businesses and individuals that register reductions are not penalized under a future climate policy, and to give transferable credits to companies that can show real emissions reductions." This directive was reiterated by DOE official Margot Anderson in her opening remarks at the DOE workshop last November: "Our new charge is going to require us to take a look at the guidelines to make sure that

they meet the directives of the President.” (Transcript Day 1, p. 13.) We surely agree.

- There is adequate legal authority to support formation of an improved national registry and revised guidelines that take each of these concepts into account by providing such acknowledgement and recognition. See EPICI supplemental comments to DOE of September 25, 2002, and Attachment 1 to this enclosure.
- These concepts are distinguishable, and there are substantial reasons for treating them separately in the improved registry and revised guidelines. Yet they are also complementary. One provides reasons to encourage reductions and reporting and is pro-active. The other provides reasonable assurance for volunteers and is defensive. In a voluntary program, neither offers guarantees, but both offer opportunities.

-- **Transferable credits:** In this concept, the reductions reported to the improved national registry can be viewed as the equivalent of credits in a “bank” that the reporting entity can add to or draw out from time to time. These credits can be bought and sold through private sector markets, with their value being determined solely by the market place. Such transactions have already occurred, and others may be anticipated both domestically and internationally. Internationally, countries that are FCCC Parties may establish trading programs and registries in which entities with multinational interests who report to the EPA Act section 1605(b) registry may want to participate through the use of reported reductions that can be treated as transferable credits.

Some argue that such credits cannot obtain their full market value until an emission target or “cap” is legislated, while others believe the real issue is giving such recognition to reported reductions would hasten the passage of a cap-related bill. However, it is our understanding that the President does not support passage of such a bill by the Congress, and thus he surely did not issue his February 2002 directive for transferable credits with a mandatory cap in mind. While we cannot predict the future, in a voluntary reporting program such unfettered speculation should not become a policy roadblock to a credit concept that is market-based and legally authorized under EPA Act and other law.

-- **Baseline protection:** Baseline protection is needed by electric generators and others in order to avoid penalizing themselves (*i.e.*, by reducing their own baselines by acting now) in the event of future climate policy. This concept should be supported because without it, such generators and other entities – including those participating in Business Challenges – easily could become reticent to make voluntary reductions. Once they volunteer, they become vulnerable to sudden and unforeseen changes in governmental policy in future months and years and the nuances of those

changes, all of which can have significant adverse economic and other consequences for them. This is particularly true in the case of climate change because the benefits of GHG reductions, avoidances and sequestrations are not necessarily local, regional or even continental, but are global in nature. As the February 14, 2002, presidential policy statement observes, knowing that they have the opportunity to be protected by their government for acting as volunteers, businesses and individuals will be encouraged to "pursue innovative strategies to reduce or sequester greenhouse gas emissions, without the risk that future climate policy will disadvantage them."

This issue is analogous to the "Class of 1985" problem under the Clean Air Amendments (CAAA) of 1990, where early volunteers who had reduced their air emissions prior to the effective date of the CAAA sought not to be penalized by the legislation for their early action.

- These reporting reforms are critical if power companies and other voluntary actors are going to fully engage in reducing, avoiding and sequestering GHGs to help fulfill the President's goal of reducing national GHG intensity. This is a crucial area in which government policies will make a huge difference in what power companies and others do and how well they are able to perform in pursuing sector goals.

4. Continued recognition and credit for reported prior actions

The revised guidelines and the national registry should not abandon or discount the effort of public and private stakeholders to report since October 19, 1994.

- We appreciate the recognition given to the issue of credit for reported prior actions in the four-agency letter to the President of July 8, 2002.

According to the EIA February 2002 publication Voluntary Reporting of Greenhouse Gases 2000, the number of entities reporting for 2000 under EPA Act section 1605(b) increased 7 percent from 1999, more than double since 1994. In addition, 65 of the reporters for 2000 "recorded commitments to take action to reduce emissions in future years, mostly during the 2000-2005 timeframe." The EIA added (p. x):

Of the 100 organizations reporting at the entity level, 96 calculated their 2000 entity-wide greenhouse gas emissions. These entities reported direct greenhouse gas emissions of 1,036 million metric tons carbon dioxide equivalent, equal to about 15 percent of total greenhouse gas emissions in 2000.

* * * *

Ninety-two entity-level reporters also reported emission reductions, including 164.1 million metric tons carbon dioxide equivalent of direct emission reductions, 27.8 million metric tons carbon equivalent of indirect emission reductions, and 7.5 million metric tons carbon dioxide equivalent of emission reductions resulting from carbon sequestration projects.

* * * *

The electric power sector (including independent power producers) accounted for 1,287 (68 percent) of the projects reported.⁶

- The projects and entity-level reductions, avoidances and sequestrations reported by these entities were all reported in accordance with EPA section 1605(b) and the existing guidelines. They are a part of the current registry. Their continued recognition under the revised guidelines and in the improved registry must be addressed without limitation. Such recognition is a powerful incentive for power companies and others in the private sector to continue to engage in voluntary actions to reduce, avoid and sequester GHGs and to fully participate in Power Partners activities. Conversely, elimination or discounting of credit for these previously reported actions would be an enormous disincentive to further engage voluntarily in such activities.

5. Continued recognition of project-based reporting

The revised guidelines and registry must continue to recognize project-based reporting, regardless of whether they are on-system or off-system.

- The current guidelines recognize project-based reporting. They state that volunteers "may report under this program" if the volunteer initiates, controls or "in some other way" participates in "activities" that "result in reducing" GHGs or "sequester carbon" and that:

The activities may be part of your regular operations, pilot studies, prototype projects, or demonstration projects.

They may take place in your community, in your workplace, at a location controlled by a third-party, or at a foreign location.

Indeed, much of the current guidelines provides guidance on reporting projects.

- For many power companies, the most cost-effective and plentiful options to reduce, avoid and sequester GHGs are projects. These include traditional offset activities such as methane, forestry and international projects, as well as demand-

⁶ The power sector constituted about 70 percent of the total reductions, avoidances and sequestrations reported in 2000.

side management (DSM) or end-use efficiency improvements, adoption of electrotechnologies, and product substitution (as in reuse of fly ash).

- The importance of recognizing off-system activities and offsets is illustrated in Attachment 2. A limitation of the carbon intensity metric for an entity is that emissions – the numerator in the formula – do not take into account off-system activities and offsets. Yet these activities are extremely important to electric generators in reducing, avoiding, sequestering or offsetting their emissions. In other words, such generators must be allowed to subtract the second list of activities in Attachment 2 from their emissions because such adjustments will help to reduce overall carbon intensity
- *International projects* are no different from domestic projects in this calculus. As noted, DOE and EIA have recognized the reporting of international projects since the inception of the EAct section 1605(b) guidelines in 1994 and the accompanying EIA reporting forms, respectively. We understand that the primary focus of the President's climate plan is on the reduction of U.S. GHG intensity. However, GHGs know no geographical boundary, and thus reducing, avoiding or sequestering GHGs overseas is effectively the same as doing so in the U.S. Section 1605(b) is part of title XVI of EAct, which, as we noted above, is entitled "Global Climate Change." In enacting this title, Congress did not intend to limit its provisions to the U.S. (except when specified).

Some other compelling reasons for power companies and others to engage in international projects are:

- The U.S. is bound by the FCCC, with its provisions for activities implemented jointly (AIJ) under the U.S. Initiative for Joint Implementation. It would be inconceivable that AIJ activities could not be counted under the revised guidelines merely because they occurred outside the U.S.
- In the same week as the President's February 14 climate policy statement, the White House recognized the importance of international projects in reducing, avoiding and sequestering GHGs when the President's Council of Economic Advisors said, "Project-based measurement... is important internationally if the U.S. wants to encourage domestic firms to seek out meaningful reductions in developing countries where fully market-based programs are unlikely to be implemented."⁷
- The same reasons that support the President's policy statement on transferable credits also apply to international projects, namely that

⁷ Council of Economic Advisors, Economic Report of the President 2002 at 248 (Feb. 2002).

1) recognition of transferable credits for international projects provides additional incentive for entities to undertake these actions, resulting in additional reductions, and 2) conversely, lack of recognition would create uncertainty regarding the acceptability of these actions, and thus hinder participation in them. The inclusion of international projects will result in a net increase in reductions, a supplementation of -- not a substitution for -- domestic actions.

-- International projects are consistent with sustainable development programs that the U.S. is undertaking in the wake of the World Summit on Sustainable Development (2002) and the Delhi Declaration on Climate Change and Sustainable Development (eighth meeting of the FCCC Conference of the Parties, 2002).

- The revised guidelines should treat reductions -- whether based on projects, domestic or international, or on entity accounting -- in the same or comparable manner and to the same extent in reporting so that one is not favored or disadvantaged over the other.

6. Direct emissions and direct emission reductions v. indirect emissions and indirect emission reductions

The existing DOE guidelines make it clear that reporters may "report both direct and indirect emissions." Presumably this guidance applies to direct and indirect emission reductions, although the guidelines are silent on such reductions.

Consistent with DOE views, *avoidances* are a form of direct emission reductions. The emission reductions of avoidances are from a projected baseline rather than a historical baseline.

With regard to *direct emissions*, we note two additional points:

- For electric generators, it should be acceptable to include only direct CO₂ emissions from generation in the U.S. in their reported entity-wide emissions. Quantification and reporting of companies' other direct emissions should remain optional.
- Electric generators should be urged (but not required) to report other categories of direct emissions if they believe that the emissions from any of the other categories (e.g., fleet vehicles, transmission and distribution, methane, nitrous oxide, sulfur hexafluoride) are greater than a *de minimis* amount. However, such generators should not be required to quantify or otherwise demonstrate that the direct emissions from these other categories are in fact *de minimis* if they are not included in the report.

Indirect emissions and indirect emission reductions should continue to be eligible for reporting but should remain as a separate, optional category. Reporting of indirect

emissions should not be required in order to have an EPAAct 1605(b) report accepted. Clearly, they should not be identified or highlighted to be included in all or even most 1605(b) reports by persons or entities.

Specific problems or issues associated with accounting for indirect emissions and indirect emission reductions include:

- Reported values for direct emissions are usually either measurements or relatively accurate calculations of an entity's actual emissions, whereas indirect emissions are always estimates of changes in another entity's emissions.
- Indirect emissions are more complicated to quantify.
 - In a wholesale power market, marginal GHG emission rates vary by time of use, both daily and seasonally, as well as by region. These rates cover a broad range. For example, they could range from .5 tons per megawatt-hour for a gas unit to 1.2 tons per megawatt-hour for a coal unit.
 - In deregulated markets, there is no single utility that serves all load. Instead there is a mélange of retail providers, wholesale suppliers, and transmission and distribution companies that makes the calculation of indirect emissions and indirect emission reductions even more complex.
- Accounting for indirect emissions will always result in double-counting of direct emissions.

Electric generators should not have to assign or allocate specific units of output (and associated emissions) to particular customers or customer groups that want to quantify indirect emissions, either at the wholesale or retail level, but should have the option to do so.

If an electric generator *opts* to assign a portion of the direct emissions from generators to purchasers, it should also report the portion so assigned as indirect emissions in order to account for all emissions from its generating units. Any reporting in this manner should be additional to the reporting of all emissions of CO₂ from generation as direct emissions.

7. Third-party verification

Third-party verification should continue to be an option that is available to all who volunteer to report under EPAAct section 1605(b), but should not be required in order for persons or entities to report.

- EPAAct subsection 1605(b)(2) calls for self-certification.⁸ The current guidelines expand on how this self-certification should be done.⁹

⁸ EPAAct provides in subsection 1605(b)(2) that the EIA "shall develop forms for voluntary reporting . . . and shall make such forms available to entities wishing to report"

- Given the express mandatory provision of EPAct subsection 1605(b)(2) on self-certification, it is at least highly questionable whether DOE could revise the guidelines effectively to mandate third-party verification of reported information or even set criteria or standards for third-party verifiers to follow.
- EIA is already performing a four-step process to check the information reported.¹⁰

information. It also provides that "Persons reporting under this subsection shall certify the accuracy of the information reported."

⁹ The current guidelines provide that if a "person" or "entity" chooses to report, they must "certify" (through the use of a "signature") such accuracy. The guidelines add, "Therefore, the person who signs the report must be authorized to act as a representative of the reporting entity for these purposes. No independent certification is required . . ." However, the reporter "may wish to indicate" if the "data has been verified by a third-party." The filing of the reported information on such forms and with such signature is subject to 18 U.S.C. § 1001, which makes it a crime to file false information knowingly and willfully.

¹⁰ At the November workshop, EIA noted that while it "does not do verification," there are "checks and balances." EIA said that "there are several steps we go through. And we just don't take the data and put a big rubber stamp on it and through it in the database and say we're done." Indeed, the EIA explained (Transcript Day 2, pp. 34-35):

. . . [I]t's quite a labor-intensive process, actually. And we'll outline the four steps for you that we do.

Number one, when we get the report in, we do what's called an analyst review. That's where the report is checked for internal consistency, accuracy of calculation, and comparability with other sources.

After we go through that process, built into the reporting software, and about three-quarters of our reports, maybe 70 – maybe up to 80 percent report electronically. So they send us a file using the reporting software. And built into the software is an edit subsystem to check for inconsistencies in the numbers that are entered.

And the analyst will go through those edit checks to see which ones are valid, which ones may not be as – as the next step in the review to find out any inconsistencies in the report.

So . . . that's what we call the methodological edit check, where the – after running the edit subsystem, the analyst goes through and checks the . . . edit subsystem, would turn to that system.

And lastly, if we find inconsistencies in that process, we're going to call the reporter back and have a follow-up discussion to determine how to settle those differences or errors or miscalculations in the form.

(footnote continues)

- As in the present guidelines, the reporting entity or person should continue to have the option to utilize third parties for verification purposes, taking into consideration the value to the reporting person or entity, the costs, the need and other relevant factors. As the EIA pointed out at the November workshop in the case of trades, it is up to “the company to decide whether or not they will get involved in a trade” and to “get it certified themselves.”¹¹
- Of particular concern is the enormous transaction costs associated with third-party verification. For example, the cost of third-party validation for clean development mechanism projects under the Kyoto Protocol – including baseline studies, validation of project methodologies and verification of performance – can result in one-time costs on the order of \$100,000, with recurring costs of \$10,000-15,000 annually.¹²
- We are not aware of any legal basis under EPCAct section 1605(b) for either DOE or EIA to be involved in setting criteria or standards for third-party verifiers, for certifying them, for establishing and maintaining lists of such approved verifiers, or for enforcing such requirements.

Attachments (2)

And only after we go through all of that process and we're in agreement is the . . . report formally accepted into the database.

¹¹ EIA added (Transcript Day 1, p. 61):

The U.S. government has nothing to do with that. It's a company decision and company action, and in essence when a company submits its information, following its guidelines to the DOE, the DOE can say that this company has followed the guidelines and period, that's it. It's up to the company, if they want to trade, to get it certified and verified, and they can take those tons to New York City, sell them to Amsterdam, sell them to any country. It takes the government out of the area of do they have authority or not.

¹² This information is based on private communications with participating entities regarding energy and forestry projects.

Attachment 1

**Response To Assertions That The Department of Energy Lacks
Legal Authority For Recognition Of Transferable Credits
And Baseline Protection**

After the Electric Power Industry Climate Initiative (EPICI) submitted on September 25, 2002, supplemental legal authority comments to the Department of Energy (DOE) docket established on May 6, 2002 (see 67 *Fed. Reg.* 30370), another commenter, Marlo Lewis, submitted a lengthy paper that examines the EPICI comments. That paper does not apparently take issue with our contention that these two concepts, baseline protection and transferable credits, are separate and distinct, but concludes that they "ultimately have no application except as part of a regulatory (emissions cap-and-trade) program" and that to "set up a pre-regulatory crediting program via 'guidelines,' pursuant to no statutory authority, would not only be improper," it "would also be illegal."

We disagree with the premise that these concepts "have no application" unless they are part of a regulatory cap and trade program and assume that the Administration also agrees fully with us, particularly in light of the President's directives of February 2002 regarding both concepts. Those directives surely did not reference a cap and trade program, and we presume that none is contemplated.

We also disagree with the paper's contention that guidelines could not give recognition to these two distinct concepts and that DOE is legally incapable, in revising the Energy Policy Act (EPAAct) section 1605(b) guidelines and improving the existing database/registry, to provide such recognition of these two concepts.

First, as to the question of whether "guidelines" could give "recognition" to these two distinct concepts, we simply note that section 1605(b) provides that the Secretary "shall . . . issue guidelines for the voluntary collection and reporting of information on sources of greenhouse gases" and that the EIA "shall develop forms for voluntary reporting under the guidelines" and "establish a data base comprised" of the voluntarily reported information. While the section is silent on public access and disclosure of the collected or reported information, DOE and the Energy Information Administration (EIA) have interpreted these provisions to provide for public disclosure of the information, subject to EPAAct subsection 1605(b)(3) on confidentiality. Indeed, EIA publishes the information annually (see EIA report Voluntary Reporting of Greenhouse Gases 2000 (Feb. 2002)). To our knowledge, there is nothing in EPAAct subsections 1605(a) or (b), the current guidelines or any other relevant law applicable to DOE and EIA that would preclude EIA from including "recognition" of these concepts as part of that annual publication.

Second, as to the question of legal authority for DOE to revise the current guidelines to provide such recognition, we refer to our letter and enclosure of September 25, 2002, which discuss this issue of legal authority at length and conclude that there is ample authority to recognize and apply these two concepts. Our conclusions are based on the legislative history of section 1605, particularly the work of the House-Senate Conference Committee; subsection 1605(b)(4), which

states that the information voluntarily reported "may be used by the reporting entity to demonstrate achieved reductions" of greenhouse gases; and the general authority contained in the DOE Organization Act. Referenced also was the Framework Convention on Climate Change (FCCC), which the U.S. signed and ratified in 1992 prior to the enactment of EAct. Clearly, the FCCC and section 1605 are in accord in encouraging voluntary actions to reduce and report reductions, avoidance and sequestration.

Contrary to the views expressed in the Lewis paper, EPICI did not rely on remarks made on final passage of EAct by Democratic Sen. Lieberman for these legal authority conclusions. EPICI did take note of those remarks because they were relevant to the changes made in the Conference Committee to the House and Senate versions of section 1605 that afforded greater "discretion" in the implementation of the new subsection (b) of section 1605. As we noted in footnote 5 of our enclosure to our September 25, 2002, supplemental comments, a Republican conferee who was a signatory of the Conference Committee's reported bill, Rep. Carlos Moorhead, made similar remarks on final House passage of the bill when he said the conference report survived "with less detail and more discretion for the Administration." 138 *Cong. Rec.* H11438 (daily ed. Oct. 5, 1992). Both remarks are supportive of the EPICI view that the final bill that was enacted clearly was revised from the pre-conference versions by 1) shifting from a call for rulemaking to guidelines and 2) discarding 11 specific provisions, including provisions on crediting and double counting, in favor of far more general language. In our view, the Lieberman/Moorhead descriptions of the final version that it was "streamlined" and entailed "less detail and more discretion" are accurate and quite appropriate. They are sound and valuable legislative history in support of the EPICI conclusion that the revised section 1605 provides "more discretion in the program's administration."

We also note rather extensive comments in the Lewis paper about bills introduced, but never enacted, during the 105th and 106th Congresses by Sen. Lieberman and others regarding "early credit" proposals. The paper asks why the Senator championed such legislation in those Congresses, if the authority already existed for these two concepts in EAct. Not knowing the intent of the Senator, we would not presume to reply to this rhetorical question. However, we understand that the bills (S. 2617 and S. 547) were decidedly regulatory in nature, which is exactly the opposite result achieved by the Conference Committee in adopting a revised section 1605. In fact, S. 2617 was an amendment to the Clean Air Act and depended on the issuance by the President of numerous regulations. S. 547, while not an amendment to that Act, also required the promulgation of regulations. Moreover, EAct was enacted in the 102d Congress. References to introduced bills in later Congresses can have no bearing on the meaning and legislative history of a prior enactment.

Attachment 2**Factors in Carbon Intensity Metrics**

Changes in carbon intensity relating to the power sector can occur from on-system or off-system actions.

I. On-system activities could include:

- Changes in fuel mix.
- Generation performance improvements.
- Changes in emissions due to improvements in efficiency of electricity use.
- Reductions in transmission and distribution losses.

II. Off-system activities that should be considered could include:

- Offset credits from carbon sequestration, methane and international projects.
- Carbon reductions in other sectors due to product substitution (*e.g.*, cement).
- Reductions in direct fuel use in other sectors due to electrotechnologies.
- Credits from net purchases of transferable credits.
- Credits for prior actions.

Depending on the level of reporting and referenced baseline, some of these activities may not be reflected in carbon intensity estimates. If not, they should be considered as adjustments to that data.

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TO:watsonhl@state.gov (watsonhl@state.gov [UNKNOWN])
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TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
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CC:Sherron R. White (CN=Sherron R. White/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

CC:Craig.Montesano@noaa.gov (Craig.Montesano@noaa.gov [UNKNOWN])
READ:UNKNOWN

TEXT:

Late today we received confirmation that the rescheduled National Assessment Briefing for Senate staff will be held on Friday, March 7, from 11:30 am to 12:30 pm. Dr. Mahoney would like to host a "meet me" teleconference to discuss strategy on Thursday afternoon from 2:30 to 3:00 pm. If you cannot participate, please have a representative dial in. The logistics for the call will be sent on Thursday morning.

Please confirm that you have seen this email and that either you or a representative will be on the call. I will call you to confirm that you have read this message if I have not heard from you by mid-morning.

Thanks,

Page 1

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Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944

III. Press Coverage of the CCSP Strategic Plan

**New York Times
Editorial Desk | March 1, 2003, Saturday
Rebuked on Global Warming**

Late Edition - Final, Section A , Page 18 , Column 1

Nothing so far has shamed President Bush into adopting a more aggressive policy toward the threat of global warming. He has been denounced by mainstream scientists, deserted by his progressive friends in industry and sued by seven states. Still he clings stubbornly to a voluntary policy aimed at merely slowing the growth of greenhouse gas emissions, despite an overwhelming body of evidence that only binding targets and a firm timetable will do the job.

Now there is fresh criticism from sources Mr. Bush may find harder to ignore. Last week Prime Minister Tony Blair of Britain, Mr. Bush's most loyal ally in the debate over Iraq, gently but firmly rebuked the president for abandoning the 1997 Kyoto Protocol on global climate change and for succumbing to the insupportable notion that fighting global warming will impede economic growth.

That was followed by another salvo, from an expert panel assembled by the National Academy of Sciences to assess Mr. Bush's proposals for further research into climate change. Though polite, the panel could hardly have been more contemptuous. It described Mr. Bush's plan as a redundant examination of issues that had largely been settled, bereft of vision, executable goals and timetables - in short, little more than a cover-up for inaction.

Of the two rebukes, Mr. Blair's may have been the more painful. The prime minister said he regarded environmental degradation in general and climate change in particular as "just as devastating in their potential impact" as weapons of mass destruction and terrorism. "There will be no genuine security," he said, "if the planet is ravaged." He also pledged to cut Britain's greenhouse gas emissions by 60 percent by midcentury, a longer-range but still a far more ambitious timetable than Kyoto's target of an average 5 percent reduction by industrialized nations by 2012.

Mr. Blair's speech obviously served the political purpose of distancing himself from the White House, at least on this issue, at a time when many of his countrymen have criticized him for his support of Mr. Bush on Iraq. It should also be noted that, in strictly economic terms, it is easier for Mr. Blair to hold the high ground on this issue than it is for Mr. Bush. Prime Minister Margaret Thatcher's wrenching decision some years ago to convert Britain's energy base from coal to natural gas, a much cleaner fuel, has already moved Britain closer to Mr. Blair's lofty targets than it otherwise would have been.

Nevertheless, the prime minister's approach is everything Mr. Bush's is not. It conveys a sense of urgency, calls for common sacrifice and offers a coherent vision of how to get from here to there. It is, in short, a recipe for the leadership that until not too long ago the world had been looking to America to provide.



Yale University
School of Forestry
& Environmental Studies

Thomas E. Graedel
Professor of Industrial Ecology
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New Haven, CT 06511
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thomas.graedel@yale.edu

March 7, 2003

Letter to the Editor, New York Times:

The editorial "Rebuked on Global Warming" (March 1) refers to a recent report of a panel that I chair for the National Research Council, the operating arm of the National Academy of Sciences and the National Academy of Engineering, on the draft U.S. Climate Change Science Program strategic plan.

Your statement "though polite, the panel could hardly have been more contemptuous" is not an accurate representation of the panel's views. We provided, on request, candid and constructive comments on the draft strategic plan, so that the final plan will be more effective.

Your statement that our report "describe[d] Mr. Bush's plan as a redundant examination of issues that had largely been settled" is also not an accurate representation. We concluded that the draft plan "identified many of the cutting-edge scientific research activities that are necessary to improve understanding of the Earth system." Among our significant recommendations, however, were that the draft plan be revised to clarify the vision and goals of the program, improve its treatment of program management issues, fill key information needs, enhance efforts to support decision making, and set the stage for implementation. The panel will be issuing a second report reviewing the government's final plan.

Respectfully,

Thomas E. Graedel
Yale University
Chair, National Research Council's Committee to Review the U.S. Climate Change Science
Program Strategic Plan

The Guardian
Oliver Burkeman in Washington
Thursday February 27, 2003

Advisers tell Bush climate plan is useless
Strategy 'lacks vision, goals, timetable and criteria'

George Bush's strategy on global warming suffered a setback yesterday when a panel of scientists convened at the request of the White House condemned it as lacking vision, and wasting time and money on research questions that were resolved years ago.

Mr Bush's plan, introduced after the US backed out of the Kyoto protocol, replaces that treaty's call for mandatory limits on greenhouse gas emissions with a decade-long programme of research to determine the scale of the problem.

But the 17 environmental experts, assembled by the National Academy of Sciences at the president's request, said in their report that the president's strategy "lacks most of the basic elements of a strategic plan: a guiding vision, executable goals, clear timetables and criteria for measuring progress", and misses the opportunity to cooperate more with other countries on research.

"I've been doing ecosystems science for 30 years, and we know what we know and what we don't know," William Schlesinger, a panel member, told the Guardian. "Rather than focusing on the things we don't know, it's almost as if parts of the plan were written by people who are totally unfamiliar with where ecosystems science is coming from.

"They say we ought to be monitoring methane in remote regions," said Dr Schlesinger, the dean of Duke University's Nicholas School of the Environment and Earth Sciences in Durham, North Carolina. "Well, we've been monitoring some of these things for 30 years, and there's no question that the levels are rising."

The Bush plan also urges, for example, more research on how carbon emissions are affected by forest fires, a question largely seen as resolved within the academy.

"They didn't set the hard priorities," said Michael Prather, an earth scientist from the University of California at Irvine and a panel member. "From the scientists' point of view, we have a pretty good idea of what is happening."

The experts also call for "greatly increased" spending on addressing climate change, far above the \$1.7bn per year earmarked. They concede that the plan is "a solid foundation", going further towards formulating a strategy on global warming research - as required by a 1990 act of Congress - than either the first President Bush or Bill Clinton.

James Mahoney, director of the government's climate change science programme, which is charged with executing the plan, said he welcomed the panel's criticisms. "Nobody

ever undertook to do something like this before. There are certainly areas where we need to improve," he said. "But we're in a process where we pushed to very quickly turn around a battleship, and we've never had a plan before."

But the scientists' findings may cause concern in the administration in the few weeks of the consultation period that remain, not least because the panel included experts from corporations including BP and Honeywell.

Mr Bush has been accused of claiming that more research is needed in order to stall moves towards limiting US greenhouse gas emissions. Environmental groups accuse the oil company Exxon Mobil of leading a campaign in the US to discredit scientific findings suggesting that the dangers of global warming are grave.

"There's no question that if you claim that not much is known, even if it is, then you delay the time at which you can say, OK, the research is unequivocal and we need to do something about the problem," Dr Schlesinger said. "It's not very far beneath the surface that there's an element of not taking any action here."

Letter to the Editor, London Guardian (UK):

Oliver Burkeman's article "Advisers tell Bush climate plan is useless" (February 27) discusses a report released by the National Research Council, the operating arm of the National Academy of Sciences and the National Academy of Engineering, on the draft U.S. Climate Change Science Program (CCSP) strategic plan.

This article misrepresented the report's conclusions in several important ways. First, its headline is not at all consistent with the committee's overall assessment of the draft plan. The committee concluded, "In general, the draft plan provides a solid foundation for the CCSP." Although the report called on CCSP to make substantial revisions, it stated that the draft plan "represents a good start to the process" and "clearly builds upon the substantial and largely successful research programs of the last decade."

Second, the NRC report did not state that the draft plan wastes "time and money on research questions that were resolved years ago." In fact, the committee found that it "identifies many of the cutting-edge scientific research activities that are necessary to improve understanding of the Earth system."

This committee worked hard to provide constructive advice to the CCSP as it takes on the challenging task of revising its draft strategic plan. In so doing, it identified the plan's strengths as well as many opportunities for improvement. Your article would have been more informative to your readers if it had accurately reflected the consensus views of our committee.

Respectfully,

E. William Colglazier

Executive Officer

U. S. National Academy of Sciences and National Research Council

Milwaukee Journal Sentinel
Editorial: Awaiting that climate plan
March 5, 2003

Awaiting that climate plan

If the Bush administration wants its position on global climate change to be taken seriously, it needs to get serious about keeping a presidential promise and coming up with a plan to address the issue. Granted, the administration has much on its plate right now. But so far, appearing serious on climate change seems to be missing from that plate.

At least that's the impression one gets from a report released last week by a panel of the National Academies, which commended the administration for addressing global warming but criticized the administration's draft plan for having serious gaps.

"The draft plan lacks most of the basic elements of a strategic plan: a guiding vision, executable goals clear timetables and criteria for measuring progress," said the report. The panel of experts, convened at the administration's request, found that the plan listed dozens of contrasting goals without setting priorities and that its research proposals were 20 years out of date. "Stuff that would have been cutting edge in the 1980s is listed as a priority for the future," said one panel member.

There is sometimes a good reason to review assumptions, but there's rarely a good reason to reinvent the wheel. At the very least, the administration needs to show whether what it is doing is the former or the latter. More important, a draft plan dealing with climate change must set priorities based on a solid understanding of the issue. How that can happen without a vision, goals, timetables and criteria for measuring progress is difficult to imagine.

Some environmentalists dismiss the plan as a joke. Maybe they're right. Maybe there was never any intention to take climate change seriously. President Bush and his people have consistently downplayed the threat posed by global warming and questioned the assumptions behind it. They certainly didn't hesitate to pull the United States out of the Kyoto Protocol on climate change.

Not all of this is bad: Pulling out of Kyoto was a good move - the U.S. Senate had previously rejected the treaty in a 95-0 vote - and reasonable doubts can be raised about the conventional wisdom on climate change. There are still too many questions about what is happening - and especially why - to be certain about anything. But that doesn't mean the issue can be dismissed; it only means that more study is needed.

In pulling out of Kyoto, the administration said it would come up with its own plan for dealing with climate change. To date, it has not done so, and the National Academies report suggests that the administration isn't very serious about ever doing so. Maybe that's just appearance, or maybe the environmentalists are right.

What the administration needs to do is change the appearance by demonstrating that it is serious about finding out what's really going on with the climate. It can start by paying heed to the National Academies report and making the necessary changes in the final plan, due out next month.

The Policy Drought on Climate Change

The holiday season here in the United States was ushered in by a long-awaited report, heralded as laying out the administration's research agenda for climate change. It should interest those in the United States who may have been expecting something meaningful from their government, along with those in Europe and elsewhere who have come to expect disappointment.

The draft strategic plan for the combined U.S. Global Change Research Program (USGCRP) and Climate Change Research Initiative (CCRI) will not surprise the second audience and will tell the first that it has fallen victim to yet another triumph of hope over experience. This long report, available at <http://globalchange.gov/#USGCRP-CCRI>, offers a smorgasbord of moderate-intensity research efforts but merely urges more study on the role of anthropogenic sources in global warming. And it includes NONE of the following: analysis of the tradeoffs involved in a major regulatory push toward fuel economy in the transportation sector, proposed cap-and-trade or other incentives for reducing carbon dioxide emissions, and a research program aimed at sequestration technologies. It is, in short, a wait-and-see document.

The scientific evidence on global warming is now beyond doubt. Readers of these pages during the past couple of years have seen one careful study after another documenting the role of anthropogenic sources of carbon dioxide and other greenhouse gases in global warming; describing the impact of past and present climate change on marine and terrestrial ecosystems; and measuring rates of glacial melting in the Arctic, the Antarctic, and on the tops of low-latitude mountains.

Old hands have noted a strange resemblance between this effort and an earlier one. NAPAP, begun in the late 1980s, was a Reagan-era effort to study the acid rain problem (the acronym stands for National Acid Precipitation Assessment Project). It was cranked up with some fanfare and had the same leadership as the present study, in the person of James Mahoney (who is probably not to be blamed for either outcome). Like the present climate change plan, NAPAP essentially concluded that the problem needed more careful study. Ironically, it arrived too late, well after the administration of Bush I had decided to take acid rain more seriously. The result was that Congress, with considerable consultation and design coming from the White House, passed the 1990 Clean Air Act amendments containing tradable-permits provisions for limiting sulfur dioxide emissions.

It's probably way too much to hope that a similar rescue might be at hand in this case, but there are encouraging signals out there. First, it now appears that industry takes the problem more seriously than the government—surely a record. British Petroleum and other energy companies now clearly expect to be doing business in a low-carbon economy, and they are spending serious money to prepare for it. So is the electric power industry, where some leaders have already made voluntary carbon offsets. Meanwhile, hybrid cars are proliferating and the insurance industry is worried about its viability. Second, Congress may be noting that the politically popular goal of energy independence is linked to that of reducing global warming, and their constituents don't have to read *Science* to know that most glaciers are melting. It's in their daily newspaper. Third, some states, weary of federal inaction in the matter, have been passing rules of their own: California recently passed a tough law to limit future fleet carbon emissions standards, despite the usual complaints from auto manufacturers that the sky would fall.

Especially relevant to the scientific community is that there will be an independent review of the administration's plan by a National Research Council panel chaired by Tom Graedel of Yale. This is an opportunity for the National Academies to make a real difference. The Graedel panel should not be satisfied simply with a marginal critique of what's there in the report. What isn't there is important, so the panel needs to undertake an independent review of the situation, evaluate the seriousness of the challenge, and explain to the government what is missing from the report. The U.S. scientific community has come to expect a great deal from the Academies. In this case, the stakes are well beyond national interest, because the nonparticipation of the United States in the global effort on climate change is more than a national embarrassment. It's dangerous.

Donald Kennedy

The
administration's
draft strategic
plan is just a
wait-and-see
document.

The Climate Divide

Several weeks ago on this page, I vented some complaints about the Bush administration's draft Climate Change Science Plan (CCSP). That plan was, and is, a complicated hybrid creature consisting of the preexisting Global Change Research Program begun by Bush père, along with a modest Climate Change Research Initiative added by the incumbents. The latter is aimed at helping managers (for example, those responsible for water resources) adapt to climate change, an objective that certainly makes some sense. The older program contains some potentially useful long-range research elements and has received to date about \$20 billion in support. Taken as a whole, however, the draft report was remarkable in that it included no recommendations for emissions limitation or other forms of mitigation. The current climate change policy depends entirely on voluntary reduction targets, which, even if met, would allow U.S. emission rates to continue to grow at around 14% per decade.

On balance, it looked like a very disappointing report. That led us to plead that the National Research Council (NRC) committee appointed to review the program should please look hard at what wasn't there, as well as what was. So far, the NRC draft (*Science*, 7 March, p. 1494) looks as though it has done half the job. It is sharply critical of the report's lack of vision, calls attention to the lack of adequate funding, and expresses concern about the lack of coordination. That's well-deserved criticism, but how about what's missing from the CCSP report? Does it make sense to offer a plan that lays out some ways of dealing with climate change but has no program for risk reduction? James Mahoney, the director of the CCSP project, promises that the final version will be different from the draft we've seen. One can always hope, but our experience to date has not been encouraging.

The failure to act promptly on climate change carries heavy prospective penalties. The administration's plans to date have studiously ignored the need to front-load the reductions in emissions of greenhouse gases (GHGs). Their strategy has been to delay these limits, on the assumption that what matters is the final atmospheric concentration of GHGs achieved at some future date, rather than the rate at which they are accumulating in the meantime. But a growing body of evidence disfavors this "slow ramp" hypothesis of global warming, with its emphasis on gradual change followed by societal adaptation to the altered climate regime. Instead, it now appears equally likely that warming events will trigger an abrupt nonlinear process, producing dramatic regional temperature decreases, especially in the temperate Northern Hemisphere. Recently analyzed records of historic climate change show that just such sudden alterations have happened in the past, preceded by radically revised patterns of oceanic circulation. Thus, the "business-as-usual" alternative that defers emission reductions may be a dangerous one.

A refreshing counterpoint to the U.S. effort is offered by the British plan announced on 24 February by Prime Minister Tony Blair (www.dti.gov.uk/energy/whitepaper/index.shtml). It provides for aggressive short-term emission reduction targets for GHGs; these would actually reduce emissions by 60% by 2050, even without nuclear power. That achievement would, by a large margin, beat the targets established by the Kyoto Protocol—targets that the United States wouldn't even talk about. Moreover, the British plan provides research commitments toward the development of renewables and other alternatives to fossil fuels, and sets industry incentives aimed at eventual energy independence. In all these respects, it is a vast improvement on the U.S. plan.

How different things might have been had the United States chosen to participate actively in the post-Kyoto climate framework process after the 2000 elections. Instead, the Bush administration took a contemptuous pass on multilateral engagement with the global warming problem, a stance that began the long, continuing process of eroding its friendships in Europe. Had it chosen to be a player instead of a critical spectator, it might have learned something about the importance of the issue, as the British did. And it might not have generated the kind of smoldering resentment that is currently creating a coalition of the unwilling with respect to the Iraq problem. Actions, after all, do have consequences.

The U.S. plans to date have studiously ignored the need to front-load the reductions in emissions of greenhouse gases.

The British plan sets industry incentives aimed at eventual energy independence.

Donald Kennedy
Editor-in-Chief



Contact: Kent Laborde
202-482-5757

FOR IMMEDIATE RELEASE
March 27, 2003

CCSP announces new release date for revised strategic plan

The U.S. Climate Change Science Program (CCSP) has scheduled June 25, 2003 for release of its revised Strategic Plan. Although later than originally planned, this revised schedule will allow sufficient time for full consideration of the wide array of useful suggestions received by CCSP from many sources since publication of its November 2002 *Discussion Draft Strategic Plan*.

CCSP received extensive comments and suggestions during the Climate Science Workshop attended by more than 1,300 climate specialists in December 2002. In the weeks following the Workshop, CCSP also received 270 sets of written public comments, involving nearly 900 pages of text. The most recent set of comments, from a CCSP-requested evaluation by the National Research Council (NRC), was released in late February 2003. The November 2002 Discussion Draft Strategic Plan and all of the response comments (from the Workshop, the public comment period, and the NRC report) are available on the CCSP web site www.climatescience.gov.

"We welcome the wide range of useful comments, which will help to substantially strengthen the revised plan," said Dr. James R. Mahoney, Assistant Secretary of Commerce for Oceans and Atmosphere and CCSP Director. "Since climate change is such a critical issue, we must understand and reconcile the diverse comments, including those that provide conflicting recommendations for future research and decision support activities."

The revised CCSP Strategic Plan will guide the concerted U.S. effort to understand the nature and implications of changes in global climate and related environmental systems. It describes high-level program objectives, specific research questions, and analyses that will support decision making on global and regional climate issues.

"All of the input has been supportive of the open, inclusive and transparent approach taken to develop the plan. We viewed the CCSP *Discussion Draft Strategic Plan* as a starting point, and made every effort to provide a forum that would encourage suggestions for improvement," Mahoney said. "We value all of the comments and believe that the tremendous response to the draft is proof of the importance of our efforts."

The Climate Change Science Program is a cooperative effort among 13 governmental agencies, and is charged with overseeing the Congressionally-mandated U.S. Global Climate Research Program (USGCRP) and the Climate Change Research Initiative (CCRI). The CCRI was launched by the President in June 2001 to reduce significant uncertainties in climate science, improve global climate observing systems, and develop resources to support policymaking and resource management. For more information, please visit www.climatescience.gov

**V. FY 2005 CCSP
Budget Development Steps**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

CEQ 42 PC

OFFICE OF
ENVIRONMENTAL INFORMATION

March 5, 2003

Mr. William L. Kovacs
US Chamber of Commerce
1615 H Street, N.W.
Washington, D.C. 20062

RE: Request for Correction of Science Advisory Board (SAB) meeting minutes pursuant to Office of Management and Budget (OMB) and EPA Information Quality Guidelines (IQG RFC # 4301)

Dear Mr. Kovacs,

This is in response to your request for correction dated December 17, 2002, raising concerns about the minutes for the EPA Science Advisory Board (SAB) meeting that was held on October 1-2, 2002. Following a thorough review, we have concluded that the *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency* (Information Quality Guidelines) are not applicable to the information in question.

The SAB is operated under the Federal Advisory Committee Act (FACA) which prescribes procedures for operating advisory committees, including ensuring that "the advice and recommendations of the advisory committee will not be inappropriately influenced by the appointing authority . . ." 5 U.S.C. App. 2 § 5. FACA requires each advisory committee to keep detailed minutes of each meeting, including "a record of the persons present, a complete and accurate description of matters discussed and conclusions reached, and copies of all reports received, issued, or approved by the advisory committee. The accuracy of all minutes shall be certified to by the chairman of the advisory committee." Id. §10(c). The Federal Advisory Committee Management Final Rule reiterates this requirement, stating that meeting minutes must include "an accurate description of each matter discussed and the resolution, if any, made by the advisory committee regarding such matter." 41 CFR 102-3.165(b)(3). In keeping with the requirements of FACA, reports, minutes, and other documents generated as part of the activities of the SAB are not reviewed for approval by EPA. Thus, minutes of SAB meetings are under the control of the SAB, not EPA.

000721

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CEQ 004546

The Information Quality Guidelines apply to information EPA disseminates to the public that is prepared by the Agency to support or represent an EPA viewpoint or to formulate or support a regulation, guidance or other Agency decision or position. Furthermore, the Information Quality Guidelines apply if EPA distributes information prepared or submitted by an outside party in a manner that reasonably suggests that EPA endorses or agrees with it; if EPA indicates in its distribution that the information supports or represents EPA's viewpoint; or if EPA in its distribution proposes to use or uses the information to formulate or support a regulation, guidance, policy, or other Agency decision or position. Although the SAB website is hosted by EPA through EPA's website, the SAB is responsible for the content of documents issued by the SAB. Therefore, the contents of the minutes (and any other public documents produced by the SAB such as reports) reflect the viewpoint of the SAB and do not represent information disseminated by EPA. Because the correction process under the Information Quality Guidelines is limited to requests for correction of information disseminated by EPA, the Information Quality Guidelines correction and reconsideration processes do not apply to the SAB meeting minutes described in your request.

To avoid future misunderstandings about materials issued by the SAB, explanatory notices will be added to the SAB website to help ensure that the public is aware that minutes of SAB meetings and other public documents produced by the SAB are advisory committee documents, and are not prepared to represent EPA's viewpoint.

While the Information Quality Guidelines do not apply to the information in question, given your interest in EPA's use of environmental models, we take this opportunity to briefly mention some ways we work to ensure and maximize the quality of the models we develop and use. EPA has established and implemented guidance and regulations to help ensure that, when using models, EPA integrates policy-making with the tenets of sound science. Furthermore, we recently revitalized a cross-Agency group of senior managers, the Council for Regulatory Environmental Modeling (CREM), to coordinate three high-priority activities, as Administrator Whitman discussed in her memorandum dated February 7, 2003 [<http://cfpub.epa.gov/crem/library/whitman.pdf>]. First, EPA will draft cross-Agency guidance on developing and using environmental models and on fostering greater and more consistent transparency in this area. Secondly, EPA will make publicly accessible an inventory of EPA's most frequently used models, which will include information on a model's use, development, evaluation, and quality assessment. Third, EPA will collaborate with the National Academy of Sciences to develop a report recommending best principles and practices in using environmental and human health models for decision-making. (Please see www.epa.gov/crem for details). We noted your favorable reaction to Administrator Whitman's memo in the February 21, 2003 BNA Daily Environment Report, and we agree that this approach will enhance the quality of information available to EPA decision makers.

If you are dissatisfied with EPA's decision that the information described in your request is not covered by EPA's Information Quality Guidelines, you may submit a Request for Reconsideration (RFR). EPA recommends that this request be submitted within 90 days of the date on this letter. To do so, submit a written request from the Information Quality Guidelines website (<http://www.epa.gov/oei/qualityguidelines>) or send a written request to the Agency's Information Quality Guidelines Processing Staff via mail (Information Quality Guidelines Staff, Mail Code 28220T, U.S. EPA, 1200 Pennsylvania Ave., N.W, Washington, D.C., 20460) or fax (202-566-0255). The request for reconsideration should reference the request number assigned to the original request for correction. Additional information that should be included in the request is listed on the IQG website.

Sincerely,



Mark Luttner, Director
Office of Information Collection
Office of Environmental Information

cc: Kimberlie Orr, EPA IQG Processing Staff



-EXECUTIVE OFFICE OF THE PRESIDENT-

COUNCIL ON
ENVIRONMENTAL
QUALITY

730 Jackson Place, NW
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FROM:	Phil Cooney		
DATE:	3/6/03	PAGES:	8 (INCLUDING COVER SHEET)

COMMENTS: for consideration of National Assessment
Issues Phil

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CREATION DATE/TIME: 6-MAR-2003 07:37:36.00

SUBJECT:: National Assessment Telecon Thursday @ 2:30pm

TO: Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP@EOP [CEQ])
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TEXT:

----- Forwarded by Phil Cooney/CEQ/EOP on 03/06/2003
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Stephanie.Harrington@noaa.gov
03/05/2003 10:05:47 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: National Assessment Telecon Thursday @ 2:30pm

Late today we received confirmation that the rescheduled National Assessment Briefing for Senate staff will be held on Friday, March 7, from 11:30 am to 12:30 pm. Dr. Mahoney would like to host a "meet me" teleconference to discuss strategy on Thursday afternoon from 2:30 to 3:00 pm. If you cannot participate, please have a representative dial in. The logistics for the call will be sent on Thursday morning.

Please confirm that you have seen this email and that either you or a representative will be on the call. I will call you to confirm that you have read this message if I have not heard from you by mid-morning.

Thanks,
Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944

Message Sent

To:

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CEQ 004552

0334_f_mnhfe003_ceq.txt

Sherron R. White/OMB/EOP@EOP
savery@cires.colorado.edu
smaccrac@usgcrp.gov
james.r.mahoney@noaa.gov

0336_f_yjkfe003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 6-MAR-2003 09:03:40.00

SUBJECT:: Re: National Assessment Telecon Thursday @ 2:30pm

TO: Stephanie.Harrington@noaa.gov (Stephanie.Harrington@noaa.gov [UNKNOWN])
READ: UNKNOWN

CC: Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TEXT:

Stephanie, I will participate, thanks, Phil

Stephanie.Harrington@noaa.gov
03/05/2003 10:05:47 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: National Assessment Telecon Thursday @ 2:30pm

Late today we received confirmation that the rescheduled National Assessment Briefing for Senate staff will be held on Friday, March 7, from 11:30 am to 12:30 pm. Dr. Mahoney would like to host a "meet me" teleconference to discuss strategy on Thursday afternoon from 2:30 to 3:00 pm. If you cannot participate, please have a representative dial in. The logistics for the call will be sent on Thursday morning.

Please confirm that you have seen this email and that either you or a representative will be on the call. I will call you to confirm that you have read this message if I have not heard from you by mid-morning.

Thanks,
Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944

Message Sent

To: _____
Phil Cooney/CEQ/EOP@EOP
David Halpern/OSTP/EOP@EOP
Watsonhl@state.gov
Marcus Peacock/OMB/EOP@EOP
gordonsc@state.gov
Erin Wuchte/OMB/EOP@EOP
MaryBeth.Nethercutt@noaa.gov
rmoos@usgcrp.gov

0336_f_yjkfe003_ceq.txt

Message Copied

To:

Craig.Montesano@noaa.gov
kent.laborde@noaa.gov
Sherron R. White/OMB/EOP@EOP
savery@cires.colorado.edu
smaccrac@usgcrp.gov
james.r.mahoney@noaa.gov

0339_f_kqmfe003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 6-MAR-2003 09:35:34.00

SUBJECT:: National Assessment Telecon Thursday @ 2:30pm

TO: Kameran L. Onley (CN=Kameran L. Onley/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TEXT:

Kam can you participate on this call? can you attend the briefing tomorrow -- Deb can not. Phil
----- Forwarded by Phil Cooney/CEQ/EOP on 03/06/2003 09:34 AM -----

Stephanie.Harrington@noaa.gov
03/05/2003 10:05:47 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: National Assessment Telecon Thursday @ 2:30pm

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Please confirm that you have seen this email and that either you or a representative will be on the call. I will call you to confirm that you have read this message if I have not heard from you by mid-morning.

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Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944

Message Sent

To: _____
Phil Cooney/CEQ/EOP@EOP
David Halpern/OSTP/EOP@EOP
Watsonh1@state.gov
Marcus Peacock/OMB/EOP@EOP
gordonsc@state.gov
Erin Wuchte/OMB/EOP@EOP
MaryBeth.Nethercutt@noaa.gov
rmoss@usgcrp.gov

Message Copied

To: _____

Page 1

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CEQ 004558

0339_f_kqmfe003_ceq.txt

Craig.Montesano@noaa.gov
kent.laborde@noaa.gov
Sherron R. White/OMB/EOP@EOP
savery@cires.colorado.edu
smaccrac@usgcrp.gov
james.r.mahoney@noaa.gov

CEQ
239 PC



Alan Hecht
03/06/2003 11:16:28 AM

Record Type: Record

To: Theodore Heintz/CEQ/EOP@EOP, Kameran L. Onley/CEQ/EOP@EOP, Phil Cooney/CEQ/EOP@EOP

cc:

Subject: Meeting with OMB Re: EPA SOE

OMB staff will meet with Ted Heintz and me on Monday at 11:30, 722 Jackson Place to go over our reviews of EPA SoE report. They have also marked up the climate section. On Monday we can compare notes.

002160

CEQ 004561

0344_f_oiwfe003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Stephanie.Harrington@noaa.gov (Stephanie.Harrington@noaa.gov [UNKNOWN])

CREATION DATE/TIME: 6-MAR-2003 11:32:56.00

SUBJECT:: Re: National Assessment Telecon Thursday @ 2:30pm

TO:rmoos@usgcrp.gov (rmoos@usgcrp.gov [UNKNOWN])
READ:UNKNOWN

TO:Erin Wuchte (CN=Erin Wuchte/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

TO:Marcus Peacock (CN=Marcus Peacock/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

TO:David Halpern (CN=David Halpern/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TO:MaryBeth.Nethercutt@noaa.gov (MaryBeth.Nethercutt@noaa.gov [UNKNOWN])
READ:UNKNOWN

TO:gordonsc@state.gov (gordonsc@state.gov [UNKNOWN])
READ:UNKNOWN

TO:watsonhl@state.gov (watsonhl@state.gov [UNKNOWN])
READ:UNKNOWN

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC:james.r.mahoney@noaa.gov (james.r.mahoney@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:savery@cires.colorado.edu (savery@cires.colorado.edu [UNKNOWN])
READ:UNKNOWN

CC:kent.laborde@noaa.gov (kent.laborde@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:Kathy.Holmes@science.doe.gov (Kathy.Holmes@science.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:smaccrac@usgcrp.gov (smaccrac@usgcrp.gov [UNKNOWN])
READ:UNKNOWN

CC:Sherron R. White (CN=Sherron R. White/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

CC:Craig.Montesano@noaa.gov (Craig.Montesano@noaa.gov [UNKNOWN])
READ:UNKNOWN

TEXT:

The conference call information for this discussion on MAR-06-2003 (Thursday) at 02:30 PM EASTERN TIME is as follows:

AUDIO PARTICIPANT ACCESS

=====

CALL DATE:	MAR-06-2003 (Thursday)
CALL TIME:	02:30 PM EASTERN TIME
DURATION:	30 min
LEADER:	MR JAMES MAHONEY

Page 1

003259

CEQ 004563

0344_f_oiwfe003_ceq.txt

USA Toll Free Number: 888-469-1058
PASSCODE: 10093

----- Original Message -----

From: <Stephanie.Harrington@noaa.gov>

Date: Wednesday, March 5, 2003 10:05 pm

Subject: National Assessment Telecon Thursday @ 2:30pm

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- > Assessment Briefing for Senate staff will be held on Friday, March
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- > teleconference to discuss strategy on Thursday afternoon from 2:30
- > to
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- >
- > Please confirm that you have seen this email and that either you
- > or a
- > representative will be on the call. I will call you to confirm
- > that you
- > have read this message if I have not heard from you by mid-morning.
- >
- > Thanks,
- > Stephanie Harrington
- > U.S. Climate Change Science Program
- > 202-482-1944



Yale University
School of Forestry
& Environmental Studies

CEQ
293 pc

Thomas F
Professor of Industrial Ecology
205 Prospect Street
New Haven, CT 06511
203.432.9733 Telephone
203.432.5556 Facsimile
thomas.graedel@yale.edu

March 7, 2003

Letter to the Editor, New York Times:

The editorial "Rebuked on Global Warming" (March 1) refers to a recent report of a panel that I chair for the National Research Council, the operating arm of the National Academy of Sciences and the National Academy of Engineering, on the draft U.S. Climate Change Science Program strategic plan.

Your statement "though polite, the panel could hardly have been more contemptuous" is not an accurate representation of the panel's views. We provided, on request, candid and constructive comments on the draft strategic plan, so that the final plan will be more effective.

Your statement that our report "describe[d] Mr. Bush's plan as a redundant examination of issues that had largely been settled" is also not an accurate representation. We concluded that the draft plan "identified many of the cutting-edge scientific research activities that are necessary to improve understanding of the Earth system." Among our significant recommendations, however, were that the draft plan be revised to clarify the vision and goals of the program, improve its treatment of program management issues, fill key information needs, enhance efforts to support decision making, and set the stage for implementation. The panel will be issuing a second report reviewing the government's final plan.

Respectfully,

Thomas E. Graedel
Yale University
Chair, National Research Council's Committee to Review the U.S. Climate Change Science
Program Strategic Plan

0356_f_8znje003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Scott Rayder <Scott.Rayder@noaa.gov> (Scott Rayder <Scott.Rayder@noaa.gov> [UNKNOWN])

CREATION DATE/TIME: 10-MAR-2003 16:35:25.00

SUBJECT:: [Fwd: FYI #32: Committee Files Response to S&T Request]

TO: Michael Catanzaro <Michael_Catanzaro@epw.senate.gov> (Michael Catanzaro <Michael_Catanzaro@epw.senate.gov> [UNKNOWN])
READ: UNKNOWN

TO: Lisa Camooso <LCamooso@doc.gov> (Lisa Camooso <LCamooso@doc.gov> [UNKNOWN])
READ: UNKNOWN

TO: Robert Card <Robert.Card@hq.doe.gov> (Robert Card <Robert.Card@hq.doe.gov> [UNKNOWN])
READ: UNKNOWN

TO: Harlan watson <watsonHL@state.gov> (Harlan watson <watsonHL@state.gov> [UNKNOWN])
READ: UNKNOWN

TO: MaryBeth Nethercutt <MaryBeth.Nethercutt@noaa.gov> (MaryBeth Nethercutt <MaryBeth.Nethercutt@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: James R Mahoney <James.R.Mahoney@noaa.gov> (James R Mahoney <James.R.Mahoney@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: Kevin Kolevar <Kevin.Kolevar@hq.doe.gov> (Kevin Kolevar <Kevin.Kolevar@hq.doe.gov> [UNKNOWN])
READ: UNKNOWN

TO: Kathie L. Olsen (CN=Kathie L. Olsen/OU=OSTP/O=EOP@EOP [OSTP])
READ: UNKNOWN

TO: Matt Englehart <MEnglehart@doc.gov> (Matt Englehart <MEnglehart@doc.gov> [UNKNOWN])
READ: UNKNOWN

TO: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Craig Montesano <Craig.Montesano@noaa.gov> (Craig Montesano <Craig.Montesano@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: "Jordan St. John" <Jordan.St.John@noaa.gov> ("Jordan St. John" <Jordan.St.John@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: Conrad C Lautenbacher <Conrad.C.Lautenbacher@noaa.gov> (Conrad C Lautenbacher <Conrad.C.Lautenbacher@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: Bob Hopkins <robert.hopkins@noaa.gov> (Bob Hopkins <robert.hopkins@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TEXT:

Good news on CLimate:

CLIMATE CHANGE: "The Administration proposes spending about \$1.75 billion on climate change science, an amount equivalent to FY 03 enacted levels. The Committee believes this is an adequate investment in this important research. The Committee supports the proposal to dedicate \$182 million to the Climate Change Research Initiative (CCRI), compared to last year's \$40 million request. However, the Committee notes that much of the increase appears to be the result of the reclassification of several ongoing research programs" "The Committee commends the Administration for working to develop a strategic plan to guide all federal research activities regarding climate, including the CCRI. The Committee plans to work with the Administration to complete the plan this year and ensure that areas of climate research the plan identifies as priorities receive adequate funding."

----- Original Message -----

Subject: FYI #32: Committee Files Response to S&T Request
Date: Mon, 10 Mar 2003 16:13:22 -0500
From: fyi@aip.org
Reply-To: fyi@aip.org
To: scott.rayder@NOAA.GOV

FYI

The American Institute of Physics Bulletin of Science Policy News
Number 32: March 10, 2003

House Science Committee Responds to Administration's FY 2004 Request

One gauge of congressional opinion regarding an administration's budget request for science and technology is provided by an inside-the-Beltway document known as the House Science Committee's "Views and Estimates." Issued every year, this analysis gives an early indication of how Congress may respond to the S&T request. What follows are selections from this recently-issued FY 2004 document pertaining to physics-related budgets. See the committee's web site at <http://www.house.gov/science/> for the full text. Twenty of 25 Republican and five of 22 Democratic members of the House Science Committee signed this report. A future FYI will include selections from the Democrats' Views and Estimates. Note that for space considerations, paragraphs have been combined. Selections are in the order that they appeared.

ROLE OF FEDERAL FUNDING FOR S&T: "while the percentage of national R&D sponsored by the federal government has declined in recent years, the federal role remains essential. Indeed, as competitive pressures have led many industrial enterprises to focus research on projects with shorter-term benefits, longer-term research depends more than ever on federal support."

NANOTECHNOLOGY: "The Administration proposes increasing spending on nanotechnology by 10 percent. This promising, broadly applicable technology field merits the additional spending. The Committee plans to report out authorizing legislation for the nanotechnology initiative (H.R. 766) later this spring."

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DEPARTMENT OF HOMELAND SECURITY (DHS): "while the Committee is generally supportive of the scale of the proposed budget for DHS, the Administration has not yet provided enough information to fully evaluate the proposed budget, despite repeated requests dating back several months. Important questions remain regarding the new Department's R&D agenda and how it will be carried out." "The Committee is concerned that the primary early focus of DHS R&D will be on development, with basic research comprising only 5 percent, or \$47 million, of the DHS R&D request. More information is needed on the R&D agenda both within and outside the Department to determine if this is adequate, especially given the proposed cuts in basic research at the Department of Defense."

PHYSICAL SCIENCES AND THE R&D FUNDING BALANCE: "While the Committee believes that the Administration has chosen the appropriate priorities for the federal R&D budget, it is nonetheless concerned that the biomedical sciences, in general, and the National Institutes of Health (NIH), in particular, continue to dwarf the remainder of the R&D budget. While the budget documents acknowledge the need to increase support for the physical sciences, the proposed spending levels would not allow that to occur, especially when compared to the enacted levels for FY 03." "Similarly, while Defense Department development programs are critical to our national security, those programs alone cannot create a stable and secure American society or even ensure our protection from enemy attacks over the long-term. Yet while the Pentagon is slated to receive a 12 percent increase, basic and applied research in the Defense Department would decrease substantially from FY 03 requested levels."

DEPARTMENT OF ENERGY: "The Committee strongly believes that the Administration's FY 04 budget request for DOE's Office of Science, which funds 40 percent of the Nation's physical science research, is inadequate. The budget proposes funding the Office at \$3.3 billion, essentially the same level provided by the Omnibus Appropriations for FY 03. This is significantly less than the \$3.8 billion the House conferees proposed providing to the Office for FY 04 in last year's comprehensive Energy Bill (H.R. 4). The proposal also falls short of the goal of the President's Council of Advisors on Science and Technology (PCAST), which recommended in its 2002 report that the FY 04 budget request begin bringing funding for the physical sciences into parity with that of the life sciences." "The Committee is particularly concerned about the future of the Office of Science's user facilities and academic research. In recent years, funding limitations have forced many user facilities to restrict the number of hours they are available to researchers, causing investments that have cost taxpayers billions to sit idle. In addition, many DOE facilities are deteriorating and staff are nearing retirement, producing a looming problem that the Committee believes must be addressed with increased resources." "The Committee supports the inclusion of \$12 million in the Office of Science request for the United States to rejoin international negotiations aimed at building ITER, a burning plasma physics experiment intended to lead eventually to the development of fusion as a commercially viable energy source. The Committee also supports the request for \$64 million, also within

the Office of Science, for nanoscale science including funding for instrumentation and construction of several nanoscale research centers. The Committee is concerned, however, that without an increase in the Office of Science's total budget, existing programs will be cut to provide the necessary increases for these new initiatives."

NIST: "The Administration proposes to spend \$387.6 million for the core NIST laboratory functions (the Scientific and Technical Research and Services account) in FY04 an increase of \$28.2 million, or 8 percent, over FY 03. The Committee is pleased with this request, and in particular supports the new initiatives in nanotechnology and homeland security for which the Administration has requested funding. However, the Committee believes that more funding should be provided to NIST to implement the significant new responsibilities Congress has recently given it." "The Committee is also pleased with the Administration's proposed construction and maintenance budget for NIST of \$69 million. The budget request provides funding to undertake much needed improvements at NIST's laboratory in Boulder, Colorado. Above all, however, the Committee wants to ensure that the new Advanced Measurement Laboratory in Gaithersburg, Maryland is completed as soon as possible. NIST's FY03 appropriation did not provide enough funding to keep this facility on schedule for completion by the end of 2003. If no additional funding can possibly be provided for its completion this year, the Committee recommends additional funding for FY 04." "The Committee takes issue with the proposal to virtually eliminate funding for the Manufacturing Extension Partnership (MEP), which helps smaller manufacturers modernize to remain competitive. In FY 00 alone (the most recent year for which data is available), the program contributed \$2.28 billion in new or retained sales, \$480 million in cost savings, and \$873 million in new capital investments. The proposed budget would end federal support for almost all state MEP centers. This change would force most centers to shut their doors just as they could be contributing to economic recovery." "The Committee continues to support the Advanced Technology Program (ATP) and is disappointed that it is phased out in the Administration's budget. The Committee remains willing to work with the Administration on the ATP reform package it sent to Congress late last year."

NATIONAL SCIENCE FOUNDATION: "The FY04 budget request for NSF is \$5.481 billion, an increase of \$452.9 million or 9 percent over the FY03 request, but only 3 percent more than the FY03 appropriated level. As a result, when compared to the actual FY03 appropriated amounts, the high priority for NSF funding expressed in the President's budget (which was submitted before the FY03 appropriation was completed) fades to nearly flat funding when adjusted for inflation. Moreover, the FY04 budget request falls far short of the \$6.39 billion authorized by the 107th Congress for NSF education and research activities in FY04." "The Committee believes that NSF should receive \$6.390 billion in FY04, the amount authorized by the National Science Foundation Authorization Act of 2002 (P.L. 107-368). This request would increase funding for NSF's core science programs, such as information technology and nanoscale science and engineering research, and it would enable NSF to begin fully funding K-12 education programs and the large facility projects that have already been approved by the National Science Board." "The Committee is pleased that the budget requests \$200 million to complete the third year of funding for the Mathematics and Science Education Partnership Program. While the requested level is lower than the amount authorized last year by the National Science Foundation Act of 2002 (P.L. 107-368), it does restore recent funding cuts and it increases the overall level to accommodate the high number of quality

applications." "Finally, the Committee is pleased that the budget request for NSF's education programs increases the stipend level for graduate students in research or teaching fellowships from \$25,000 to \$30,000."

NASA: "The Administration has proposed \$15.469 billion for NASA in FY04, an increase of less than 1 percent above NASA's FY03 appropriation of \$15.335 billion. Unfortunately, as a result of the tragic loss of the Space Shuttle, it is impossible at this time to credibly assess the proposed funding levels contained in significant portions of NASA's FY04 budget request." "On February 1, 2003, the Space Shuttle Columbia was destroyed during re-entry and the seven astronauts on-board were killed. Following the accident, NASA grounded the Shuttle fleet indefinitely pending an investigation by a team of outside experts. Clearly, the accident and subsequent grounding of the Shuttle will have a significant effect on NASA's proposed FY04 budget request for the Shuttle program and the programs that rely on the Shuttle, specifically the International Space Station (ISS), and the ISS research program which is contained in the Office of Biological and Physical Research. In total, these programs account for approximately \$6.6 billion of NASA's \$15.5 billion budget. It is too early in the investigation to accurately predict what NASA's FY04 budget requirements will be for these programs." "NASA hoped to achieve U.S. core complete assembly of the ISS [International Space Station] by spring 2004 and have 12 research racks in operation. However, these plans are being re-assessed as well. Therefore, the Committee cannot adequately address whether the Administration's \$1.71 billion FY04 budget request for ISS assembly and operations is justified. While the ISS has been an item of concern for the Committee, NASA has made significant progress this past year in establishing more credible cost estimates and management processes for the program." "The Administration requested \$972.7 million in FY04 for NASA's Biological and Physical Research program, which is a 6.5 percent increase over the FY03 request, as calculated using full cost. This budget reflects NASA's commitment to the Research Maximization and Prioritization (REMAP) Task Force recommendations to increase the priority and productivity of science on the Space Station. NASA management should be commended for providing more stability to the Space Station research program. However, the loss of the Columbia and grounding of the Space Shuttle fleet will impact NASA's ability to conduct this research." "Three major NASA programs, Space Science, Earth Science, and Aeronautics are not directly affected by the grounding of the Space Shuttle fleet. The Administration's FY04 budget request for NASA's Space Science enterprise is \$4.01 billion. The Committee strongly supports NASA's Space Science program and the Administration's request, including Project Prometheus for space nuclear power and propulsion systems, optical communications, and the Beyond Einstein initiative." "The Committee supports the Administration's request of \$1.55 billion for NASA's Earth Science Enterprise and applauds NASA's work with the interagency climate change science program. However, the Committee is concerned that the Administration is requesting only \$75 million in FY04 for NASA's Earth Science Application programs, despite its proven track record of high payoff endeavors, including improved weather forecasting, disaster management, terrain mapping, and aviation safety. The Committee is also concerned that the Administration is not adequately transitioning NASA's technology efforts, such as space radar and weather monitoring sensors, into operational capabilities."

#####

Richard M. Jones
Media and Government Relations Division

0356_f_8znje003_ceq.txt

The American Institute of Physics

fyi@aip.org

(301) 209-3094

##END#####

If you no longer wish to receive this content alert for each issue, please send a blank e-mail to fyi-signoff-request@listserv.aip.org.

0357_f_y7oje003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 10-MAR-2003 16:37:13.00

SUBJECT: FYI, PHIL[Fwd: FYI #32: Committee Files Response to S&T Request]

TO: Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP@EOP [CEQ])

READ: UNKNOWN

TEXT:

----- Forwarded by Phil Cooney/CEQ/EOP on 03/10/2003
04:37 PM -----

Scott Rayder <Scott.Rayder@noaa.gov>

03/10/2003 04:31:39 PM

Record Type: Record

To: See the distribution list at the bottom of this message

CC:

Subject: [Fwd: FYI #32: Committee Files Response to S&T Request]

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Date: Mon, 10 Mar 2003 16:13:22 -0500

From: fyi@aip.org

Reply-To: fyi@aip.org

To: scott.rayder@NOAA.GOV

FYI

The American Institute of Physics Bulletin of Science Policy News
Number 32: March 10, 2003

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Page 1

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CEQ 004575

pertaining to physics-related budgets. See the committee's web site at <http://www.house.gov/science/> for the full text. Twenty of 25 Republican and five of 22 Democratic members of the House Science Committee signed this report. A future FYI will include selections from the Democrats' Views and Estimates. Note that for space considerations, paragraphs have been combined. Selections are in the order that they appeared.

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PHYSICAL SCIENCES AND THE R&D FUNDING BALANCE: "While the Committee believes that the Administration has chosen the appropriate priorities for the federal R&D budget, it is nonetheless concerned that the biomedical sciences, in general, and the National Institutes of Health (NIH), in particular, continue to dwarf the remainder of the R&D budget. While the budget documents acknowledge the need to increase support for the physical sciences, the proposed spending levels would not allow that to occur, especially when compared to the enacted levels for FY 03." "Similarly, while Defense Department development programs are critical to our national security, those programs alone cannot create a stable and secure American society or even ensure our protection from enemy attacks over the long-term. Yet while the Pentagon is slated to receive a 12 percent increase, basic and applied research in the Defense Department would decrease

substantially from FY 03 requested levels."

DEPARTMENT OF ENERGY: "The Committee strongly believes that the Administration's FY 04 budget request for DOE's Office of Science, which funds 40 percent of the Nation's physical science research, is inadequate. The budget proposes funding the Office at \$3.3 billion, essentially the same level provided by the Omnibus Appropriations for FY 03. This is significantly less than the \$3.8 billion the House conferees proposed providing to the Office for FY 04 in last year's comprehensive Energy Bill (H.R. 4). The proposal also falls short of the goal of the President's Council of Advisors on Science and Technology (PCAST), which recommended in its 2002 report that the FY 04 budget request begin bringing funding for the physical sciences into parity with that of the life sciences." "The Committee is particularly concerned about the future of the Office of Science's user facilities and academic research. In recent years, funding limitations have forced many user facilities to restrict the number of hours they are available to researchers, causing investments that have cost taxpayers billions to sit idle. In addition, many DOE facilities are deteriorating and staff are nearing retirement, producing a looming problem that the Committee believes must be addressed with increased resources." "The Committee supports the inclusion of \$12 million in the Office of Science request for the United States to rejoin international negotiations aimed at building ITER, a burning plasma physics experiment intended to lead eventually to the development of fusion as a commercially viable energy source. The Committee also supports the request for \$64 million, also within the Office of Science, for nanoscale science including funding for instrumentation and construction of several nanoscale research centers. The Committee is concerned, however, that without an increase in the Office of Science's total budget, existing programs will be cut to provide the necessary increases for these new initiatives."

NIST: "The Administration proposes to spend \$387.6 million for the core NIST laboratory functions (the Scientific and Technical Research and Services account) in FY04 an increase of \$28.2 million, or 8 percent, over FY 03. The Committee is pleased with this request, and in particular supports the new initiatives in nanotechnology and homeland security for which the Administration has requested funding. However, the Committee believes that more funding should be provided to NIST to implement the significant new responsibilities Congress has recently given it." "The Committee is also pleased with the Administration's proposed construction and maintenance budget for NIST of \$69 million. The budget request provides funding to undertake much needed improvements at NIST's laboratory in Boulder, Colorado. Above all, however, the Committee wants to ensure that the new Advanced Measurement Laboratory in Gaithersburg, Maryland is completed as soon as possible. NIST's FY03 appropriation did not provide enough funding to keep this facility on schedule for completion by the end of 2003. If no additional funding can possibly be provided for its completion this year, the Committee recommends additional funding for FY 04." "The Committee takes issue with the proposal to virtually eliminate funding for the Manufacturing Extension Partnership (MEP), which helps smaller manufacturers modernize to remain competitive. In FY 00 alone (the most recent year for which data is available), the program contributed \$2.28 billion in new or retained sales, \$480 million in cost savings, and \$873 million in new capital investments. The proposed budget would end federal support for almost all state MEP centers. This change would force most centers to shut their doors just as they could be contributing to economic recovery." "The Committee continues to support the Advanced Technology Program (ATP) and is disappointed

that it is phased out in the Administration's budget. The Committee remains willing to work with the Administration on the ATP reform package it sent to Congress late last year."

NATIONAL SCIENCE FOUNDATION: "The FY04 budget request for NSF is \$5.481 billion, an increase of \$452.9 million or 9 percent over the FY03 request, but only 3 percent more than the FY03 appropriated level. As a result, when compared to the actual FY03 appropriated amounts, the high priority for NSF funding expressed in the President's budget (which was submitted before the FY03 appropriation was completed) fades to nearly flat funding when adjusted for inflation. Moreover, the FY04 budget request falls far short of the \$6.39 billion authorized by the 107th Congress for NSF education and research activities in FY04." "The Committee believes that NSF should receive \$6.390 billion in FY04, the amount authorized by the National Science Foundation Authorization Act of 2002 (P.L. 107-368). This request would increase funding for NSF's core science programs, such as information technology and nanoscale science and engineering research, and it would enable NSF to begin fully funding K-12 education programs and the large facility projects that have already been approved by the National Science Board." "The Committee is pleased that the budget requests \$200 million to complete the third year of funding for the Mathematics and Science Education Partnership Program. While the requested level is lower than the amount authorized last year by the National Science Foundation Act of 2002 (P.L. 107-368), it does restore recent funding cuts and it increases the overall level to accommodate the high number of quality applications." "Finally, the Committee is pleased that the budget request for NSF's education programs increases the stipend level for graduate students in research or teaching fellowships from \$25,000 to \$30,000."

NASA: "The Administration has proposed \$15.469 billion for NASA in FY04, an increase of less than 1 percent above NASA's FY03 appropriation of \$15.335 billion. Unfortunately, as a result of the tragic loss of the Space Shuttle, it is impossible at this time to credibly assess the proposed funding levels contained in significant portions of NASA's FY04 budget request." "On February 1, 2003, the Space Shuttle Columbia was destroyed during re-entry and the seven astronauts on-board were killed. Following the accident, NASA grounded the Shuttle fleet indefinitely pending an investigation by a team of outside experts. Clearly, the accident and subsequent grounding of the Shuttle will have a significant effect on NASA's proposed FY04 budget request for the Shuttle program and the programs that rely on the Shuttle, specifically the International Space Station (ISS), and the ISS research program which is contained in the Office of Biological and Physical Research. In total, these programs account for approximately \$6.6 billion of NASA's \$15.5 billion budget. It is too early in the investigation to accurately predict what NASA's FY04 budget requirements will be for these programs." "NASA hoped to achieve U.S. core complete assembly of the ISS [International Space Station] by spring 2004 and have 12 research racks in operation. However, these plans are being re-assessed as well. Therefore, the Committee cannot adequately address whether the Administration's \$1.71 billion FY04 budget request for ISS assembly and operations is justified. While the ISS has been an item of concern for the Committee, NASA has made significant progress this past year in establishing more credible cost estimates and management processes for the program." "The Administration requested \$972.7 million in FY04 for NASA's Biological and Physical Research program, which is a 6.5 percent increase over the FY03 request, as calculated using full cost. This budget reflects NASA's commitment to the Research Maximization and Prioritization (ReMAP) Task Force

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recommendations to increase the priority and productivity of science on the Space Station. NASA management should be commended for providing more stability to the Space Station research program. However, the loss of the Columbia and grounding of the Space Shuttle fleet will impact NASA's ability to conduct this research." "Three major NASA programs, Space Science, Earth Science, and Aeronautics are not directly affected by the grounding of the space Shuttle fleet. The Administration's FY04 budget request for NASA's Space Science enterprise is \$4.01 billion. The Committee strongly supports NASA's Space Science program and the Administration's request, including Project Prometheus for space nuclear power and propulsion systems, optical communications, and the Beyond Einstein initiative." "The Committee supports the Administration's request of \$1.55 billion for NASA's Earth Science Enterprise and applauds NASA's work with the interagency climate change science program. However, the Committee is concerned that the Administration is requesting only \$75 million in FY04 for NASA's Earth Science Application programs, despite its proven track record of high payoff endeavors, including improved weather forecasting, disaster management, terrain mapping, and aviation safety. The Committee is also concerned that the Administration is not adequately transitioning NASA's technology efforts, such as space radar and weather monitoring sensors, into operational capabilities."

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CEQ 44 PC

 David Halpern
03/10/2003 06:31:48 PM

Record Type: Record

To: pcooney@ceq.eop.gov
cc: Stanley S. Sokul/OSTP/EOP@EOP, Clifford J. Gabriel/OSTP/EOP@EOP, David Halpern/OSTP/EOP@EOP
Subject: CEI Petitions

Phil,

OSTP will meet with DOC on Monday, March 17th, at 2:30 pm to prepare a plan for a unified response to the CEI Petitions. Location is TBD.

Stan Sokul, OSTP Counsel, is going to contact EPA so there is a representative from EPA at the meeting.

Who from CEQ should be involved in the process to respond to the CEI Petitions?

Dave

564-9429 Reid

Faney, Reid @epa for

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B341B

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Ude Burlington → Legal

Dan Cohen → OGC

Stan Sokol →

David Halperin →

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Dave

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CEQ 004583

CEQ 185 PC

• Dana M. Perino

03/12/2003 01:41:44 PM

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Subject: Fwd:Op-ed on AGs' CO2 litigation

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Michael_Catanzaro@epw.senate.gov (Michael Catanzaro)

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Author: "Marlo Lewis" <mlewis@cei.org>
Date: 3/12/2003 12:31 PM

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Whitman's Opportunity

Lewis Op-Ed in Tech Central Station

Op-Eds & Articles

by Marlo Lewis, Jr. </dyn/view_expert.cfm?expert=10>

March 12, 2003

Does the Clean Air Act impose a "mandatory duty" on the Environmental Protection

Agency (EPA) to regulate carbon dioxide (CO2), the principal greenhouse gas targeted by the Kyoto Protocol?

That's what the Attorneys General (AGs) of Connecticut, Massachusetts, Maine, New York, New Jersey, Rhode Island, and Washington assert in two recent notices

of intent to sue EPA Administrator Christine Todd Whitman. In effect, the AGs claim the Clean Air Act compels Whitman to implement the Kyoto Protocol-a non ratified treaty.

Far from it being EPA's duty to regulate CO2, EPA has no authority to do so.

The

plain language, structure, and legislative history of the Clean Air Act

CEQ 004585

demonstrate that Congress never delegated such power to EPA.

The AGs somehow miss the obvious. The Clean Air Act (CAA) provides distinct grants of authority to administer specific programs for specific purposes. It authorizes EPA to administer a national ambient air quality standards program, a hazardous air pollutant program, a stratospheric ozone protection program, and so on. Nowhere does it even hint at establishing a climate protection program. There is no subchapter, section, or even subsection on global climate change. The terms "greenhouse gas" and "greenhouse effect" do not occur anywhere in the Act.

Definitional Possibilities Don't Cut It

Lacking even vague statutory language to point to, the AGs build their case on "definitional possibilities" of words taken out of context—a notoriously poor guide to congressional intent [FDA v. Brown & Williamson, 120 U.S. 133 (2000)].

The AGs argue as follows:

CAA Section 302(g) defines "air pollutant" as "any ... substance or matter

which is emitted into or otherwise enters the ambient air." CO2 fits that definition, and is, moreover, identified as an "air pollutant" in Section 103(g).

Sections 108 and 111 require EPA to "list" an air pollutant for regulatory action if the Administrator determines that it "may reasonably be anticipated to endanger public health and welfare."

The Bush Administration's Climate Action Report 2002 projects adverse health and welfare impacts from CO2-induced global warming, and EPA contributed to that report.

Hence, Administrator Whitman must initiate a rulemaking for CO2.

The AGs' argument may seem like a tight chain of reasoning. In reality, it is mere wordplay, a sophomoric attempt to turn statutory construction into a game of "gotcha." No regulatory authority can be inferred from the fact that CO2 meets an abstract definition of "air pollutant" that applies equally well to oxygen and water vapor. Indeed, the very text cited by the AGs—Section 103(g)—admonishes EPA not to infer such authority. 103(g) concludes: "Nothing in this subsection shall be construed to authorize the imposition on any person of air pollution control requirements." If nothing in 103(g) can authorize the imposition of control requirements, then the passing reference therein to CO2 as an "air pollutant" cannot do so.

As to the phrase "endanger public health and welfare," it proves too much. It applies equally well to many substances that EPA does not—and may not regulate under Sections 108 and 111. For example, chlorofluorocarbons (CFCs) are emitted into the ambient air, and are believed to endanger public health and welfare by thinning stratospheric ozone. EPA regulates 53 ozone-depleting substances under Sections 601-618. Congress added those provisions in the 1990 CAA Amendments precisely because existing authorities—including Sections 108 and 111—were unsuited to address the issue of ozone depletion.

Section 108 provides authority for EPA to set national ambient air quality standards (NAAQS), which determine allowable emission concentrations for certain pollutants. Section 111 provides authority for EPA to set new source performance standards (NSPS), which determine allowable emission rates for certain pollutants from new stationary sources. Attempting to protect stratospheric ozone by establishing allowable ambient levels or allowable new source emission rates for CFCs would be a fool's errand. Congress had to amend the CAA and add Title VI before EPA could lawfully implement a stratospheric ozone protection program. Similarly, Congress would have to amend the Act again before EPA could implement a regulatory climate protection program.

Words Out of Context

To interpret a statute, one must read the words not "in isolation" but in their "statutory context" [FDA v. Brown & Williamson, at 133]. The AGs cite Section 103(g)'s reference to CO2 as an "air pollutant," but do not mention that 103(g) is a non-regulatory provision (it directs the Administrator to develop "non-regulatory strategies and technologies" for controlling air emissions). Nor do they point out that 103(g) is the sole CAA provision to mention "carbon dioxide." And, as we have seen, they fail to note 103(g)'s caveat against inferring pollution control "requirements."

Worse, the AGs say nothing at all about Section 602(e), which contains the CAA's sole reference to "global warming." 602(e) is also a non-regulatory provision (it directs the Administrator to "publish"-i.e., research-the "global warming potential" of ozone-depleting substances). It, too, concludes with a caveat: "The preceding sentence [concerning global warming potential] shall not be construed to be the basis of any additional regulation under [the CAA]."

So there you have it. When the CAA mentions "carbon dioxide" and "global warming," it does so only in the context of non-regulatory provisions, and each time warns EPA not to infer authority for additional (unspecified) regulation.

Absurd Exercise in Futility

The AGs of Connecticut, Massachusetts, and Maine contend that EPA must begin the process of setting national ambient air quality standards for CO2. However, the NAAQS program, with its state-by-state implementation plans, and county by-county attainment and non-attainment designations, targets pollutants that vary regionally and even locally in their ambient concentrations. Thus, as attorney Peter Glaser explains, the NAAQS program has no rational application to a global atmospheric phenomenon like the greenhouse effect.

Although CO2 concentrations vary slightly from place to place due to different sources and sinks, CO2 is well mixed throughout the global atmosphere, and it is

global concentrations that supposedly influence climate change. Consequently, it is not even possible to imagine how EPA, after setting a NAAQS for CO2, could assign attainment or non-attainment status to any state or county without simultaneously assigning the same status to all other states or counties. When has EPA ever published a NAAQS that effectively-and instantly-turned the entire country into a gigantic attainment or non-attainment area?

It gets even sillier. Since a multilateral regime like Kyoto would barely slow the projected increase in CO2 concentrations, it is incomprehensible how any state implementation plan could "specify the manner in which primary [health] and secondary [welfare] ambient air quality standards will be achieved and maintained within each air quality region of such State," as required by CAA Section 107(a).

Any attempt to apply Section 108 to CO2 must founder on such imponderables. Consider the possibilities. If EPA set a NAAQS for CO2 above current atmospheric levels, then the entire country would be in attainment, even if U.S. hydrocarbon fuel consumption suddenly doubled. Conversely, if EPA set a NAAQS for CO2 below current levels, the entire country would be out of attainment, even if all power plants, factories, and cars shut down. If EPA set a NAAQS for CO2 at current levels, the entire country would be in attainment-but only temporarily. As soon as global concentrations increased, the whole country would be out of attainment, regardless of whether U.S. emissions were going up or going down.

When certain words in a statute lead to results that are "absurd or futile," or "plainly at variance with the policy of the legislation as a whole," the Supreme Court follows the Act's "policy" rather than the "literal words" [United States v. American Trucking Ass'n, 310 U.S. 534, 543 (1939)]. Attempting to fit CO2 into the NAAQS regulatory structure would be an absurd exercise in futility, and plainly at variance with the Act's policy-powerful evidence that when Congress enacted Section 108, it did not intend for EPA to regulate CO2.

Flunking Legislative History

Legislative history also compels the conclusion that EPA may not regulate CO2. When the Senate passed its version of the 1990 CAA Amendments (S. 1630), it declined to adopt a provision that would have established CO2 emission-rate standards for automobiles. House and Senate conferees subsequently deleted provisions that would have made "global warming potential" a basis for regulating ozone-depleting substances. In short, when Congress last amended the CAA, it considered and rejected regulatory climate protection strategies. The AGs do not have a leg to stand upon. As the Supreme Court has stated: "Few principles of statutory construction are more compelling than the proposition that Congress does not intend sub silentio to enact statutory language that it has earlier discarded in favor of other language" [INS v. Cardozo-Fonseca, 480 U.S. 421, 442-43 (1983)].

What about Section 111-does Whitman have a duty to establish performance standards for CO2 emissions from power plants? Not a chance. Congress enacted

Section 111 in 1970-before global warming was even a gleam in Al Gore's eye. At no point in the deliberations on the 1990 CAA Amendments did Congress even consider proposals to apply the NSPS program to global warming. In the 105th, 106th, and 107th Congresses, Sen. Patrick Leahy introduced legislation to amend Section 111 and set performance standards for CO2 emissions from power plants. Each time the bill failed to attract even one co-sponsor. The AGs would have us believe Congress implicitly enacted the substance of Leahy's three-time loser back in 1970. The phrase "laughed out of court" was invented for just such inanities.

Junk Science Doesn't Cut It, Either

Has Whitman "determined" that CO2 emissions endanger public health and welfare, as the AGs claim? The Bush Administration's Climate Action Report 2002 (CAR) is an alarmist document, and EPA contributed to it. However, the CAR's scary climate scenarios are a rehash of the Clinton-Gore Administration's report, Climate Change Impacts on the United States (CCIUS), and the Bush Administration, in response to litigation by the Competitive Enterprise Institute, Sen. James Inhofe (R-OK), and others, agreed that the CCIU climate scenarios are "not policy positions or statements of the U.S. Government."

Both the CAR and the CCIUS rely on two non-representative climate models-the "hottest" and "wettest" out of some 26 available to Clinton-Gore officials. In addition, as Virginia State Climatologist Patrick Michaels discovered, and NOAA scientist Thomas Karl confirmed, the two underlying models (U.K. and Canadian) could not reproduce past U.S. temperatures better than could a table of random numbers. The CAR thus flunks Federal Data Quality Act standards for utility and objectivity of information. Any rulemaking based upon it would be challengeable as arbitrary and capricious.

In any event, because the CAA provides no authority for regulatory climate strategies, EPA could not regulate CO2 even if the CAR scenarios were based on credible science and did reflect U.S. Government policy.

Transparent Power Grab

It is not difficult to see what the AGs stand to gain if EPA classifies CO2 as a regulated pollutant. Instantly, tens of thousands of hitherto law-abiding and environmentally responsible businesses (indeed, all fossil fuel users) would become "polluters." The number of firms potentially in violation of the CAA would vastly increase. Since states have primary responsibility for enforcing the CAA, the AGs' prosecutorial domain would grow by orders of magnitude.

The AGs' notices of intent to sue create a test of leadership for Whitman. They put her in a cross fire between President Bush, who opposes Kyoto, and the EPA career bureaucracy, which has long sought the power to regulate CO2, and which, during the Clinton-Gore Administration, asserted the same bogus legal opinions the AGs now espouse. Whitman should relish this challenge. The AGs have unwittingly handed Whitman an opportunity to refute their arguments and, by so doing, avert an era of anti-energy litigation.

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Phil

John
FL

Prudence pays – practical steps to bridge conflicting views on climate change

Sir Philip Watts

Chairman of the Committee of Managing Directors
Royal Dutch/Shell Group

Rice University, Houston
March 12, 2003

001535

CEQ 004594



SIR PHILIP WATTS has been Chairman of The "Shell" Transport and Trading Company plc and of the Committee of Managing Directors of the Royal Dutch/Shell Group since July 2001. He has been a managing director of Shell Transport and a Group managing director since 1997.

His functional and geographical responsibilities as a Group managing director are: Finance; Human Resources; Legal; International Department; Strategic Planning, Sustainable Development and External Affairs; and the United States.

He joined Shell in 1969 and worked in Indonesia, the UK, Norway and the Netherlands. In 1991 he went to Lagos as Chairman and Managing Director of the Shell Petroleum Development Company of Nigeria, returning to The Hague as Regional Co-ordinator Europe in 1994. From the beginning of 1996 until becoming a managing director, he was director of Planning, Environment and External Affairs for Shell International in London.

Philip Watts was born in 1945 in Birstall, Leicestershire, England. He graduated from Leeds University with a BSc in Physics and an MSc in Geophysics. In between these two degrees he taught in a secondary school in Sierra Leone for two years. He is married and has a daughter, a son and three grandchildren.

He is chairman of the World Business Council for Sustainable Development and of the UK chapter of the International Chamber of Commerce. In January 2003 he was knighted for services to British business and in recognition of his role in the WBCSD.

His interests include reading and gardening.

Climate change is a fundamental challenge in a world where energy needs could grow threefold over the next 50 years. There is compelling evidence that climate change is a threat, although there are still huge uncertainties about the risks and impact. There are no quick fixes so we need to take action now – to learn how to respond, test possibilities, build the foundations for long term-change, and retain the flexibility to adapt to developing understanding. There is much that can be done that is both economic and helps to meet other energy challenges, such as ensuring the energy security modern societies require. Responding to the climate threat effectively and efficiently is made harder by differences among key actors. Focusing on practical action is the best way to find common ground. Shell recognised the need for action six years ago. We are committed to playing our part – by reducing greenhouse emissions from producing energy, helping our customers to reduce their emissions from using it, and working with others to make progress.

I am proud to work for a business which is primarily engaged in delivering the oil and natural gas that are – and will long remain – the mainstay of the world's energy requirements.

I have no doubt that those who work in this great industry, in which Texas has such a vital role, make an essential contribution to society.

I also have no doubt that it is both possible – and necessary – for this industry to respond to the challenges of sustainability.

In Shell, we committed ourselves six years ago to contribute to sustainable development in our business principles. We work very hard at this. We see sustainable development as a practical way of integrating economic, social and environmental needs throughout our operations – driven by systematic engagement with the concerns of those they affect.

It is about how we do our business and how we work with others.

So I am particularly pleased to speak at the inaugural conference of the Shell Center for Sustainability at Rice University.

When William Marsh Rice founded the institute which became this great university in 1891, we can safely assume he had never given any thought to the words 'sustainable development'. But what he was doing was completely in line with it, supporting the social development necessary for the future of this city, as well as its economic progress.

The Shell Center for Sustainability has two very practical purposes – to foster the innovation that enhances environmentally sustainable economic growth, and to promote collaborative thinking about the challenges of sustainability.

Sustainable development embraces much. So I intend to focus on one of its most fundamental challenges, the complex threat from climate change.

I say 'complex' because questions and controversy still swirl around the issue. Is the science sufficient? Is Kyoto the answer? How do we address the rift between the United States and so many other countries? What is the role of voluntary action? What are we prepared to pay to address the problem? What part should less developed countries play?

Amid all this uncertainty we have seen and heard enough in Shell to say

- we stand with those who believe there is a problem, and that it is related to the burning of fossil fuels,
- we stand with those who are prepared to take action to solve that problem now, before it is too late, and
- we believe that businesses, like Shell, can help to bridge differences on this issue.

It is a challenge for all society, not just companies. But this industry has particular responsibilities and I will say something about how Shell is

“We stand with those who believe there is a problem, and that it is related to the burning of fossil fuels ... with those who are prepared to take action to solve that problem now.”

responding.

Above all we need to work together. There is much we can all agree on if we focus on taking practical action today, rather than getting bogged down in the details of long-term plans that are bound to need changing.

But business can only act within the right policy framework, which gives us the flexibility to react to developing understanding. We look to governments for this.

Depending on energy

The climate challenge is so fundamental because it is closely linked with how we get and use the energy we depend on, and which the world requires in increasing quantities.

Energy needs have grown fourfold in my lifetime. Yet there are still huge disparities in consumption. Developed countries containing only 15% of the world's people consume over half the energy.

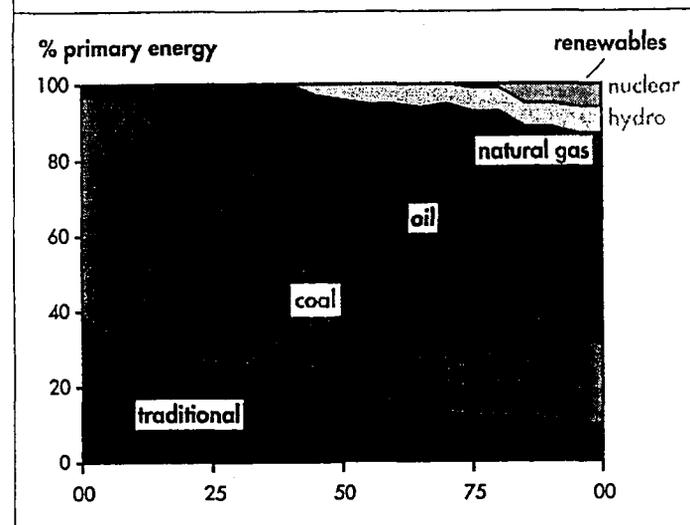
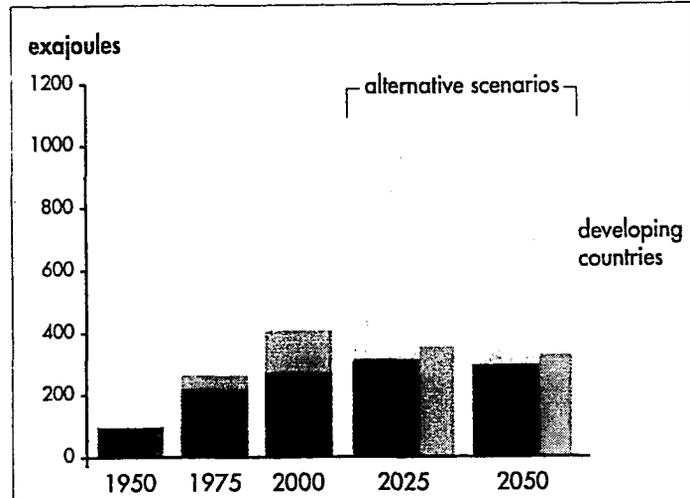
Perhaps two billion people must still rely on gathered wood and agricultural waste, damaging their health and their environment by doing so.

Enabling these people to gain the benefits of modern energy that others take for granted is an urgent task. The Healthy Homes & Communities Partnership launched by the US government at the Johannesburg Sustainable Development Summit is an important initiative. The Shell Foundation is co-operating on the issue of indoor pollution in developing countries.

Over the next 50 years the world's energy needs may grow another two or three times, to enable the development necessary to raise living standards everywhere. (Figure 1)

Energy use accelerates in the initial stages of urbanisation and industrialisation, but grows more slowly as societies get richer. For example, US energy demand per capita has grown by just 3% since 1980.

Energy consumption in today's developed countries could peak within the next 20 years. Although, while our



energy comes from non-renewable sources, we must constantly develop new reserves to replace those we consume. Maintaining the supply security modern societies require is a vital challenge.

Meeting growing needs

How do we meet growing energy needs?

The key is that the energy system is continually developing. There were huge changes over the 20th century, as energy sources diversified and became progressively less carbon intensive. (Figure 2)

This happened because businesses responded to people's changing expectations, as consumers and as citizens.

Looking forward, there are two key driving forces – resource availability and innovation.

When will fossil fuels become scarce?

There is much debate about this. In

Figure 1: World energy demand 1950-2050 (Shell scenarios)

Figure 2: Twentieth century energy transitions

“Over the next 50 years the world's energy needs may grow another two or three times, to enable the development necessary to raise living standards everywhere.”

Shell, we think global resource constraints are very unlikely before 2025, and perhaps not for some time thereafter.

Energy developments have always depended on innovation, as businesses respond to challenges and opportunities. This creativity has certainly not diminished. More resources are being applied to research, made more effective by modern communications and computing. I believe we are entering a particularly innovative period in energy technology.

The world faces great energy challenges. How might energy systems adapt to meet them?

Exploring the future

In Shell, we use scenarios – contrasting stories – to help us think about future possibilities.

We have developed scenarios describing two alternative energy paths to 2050. (Figure 3)

One is an evolutionary progression from coal, to natural gas, to renewables.

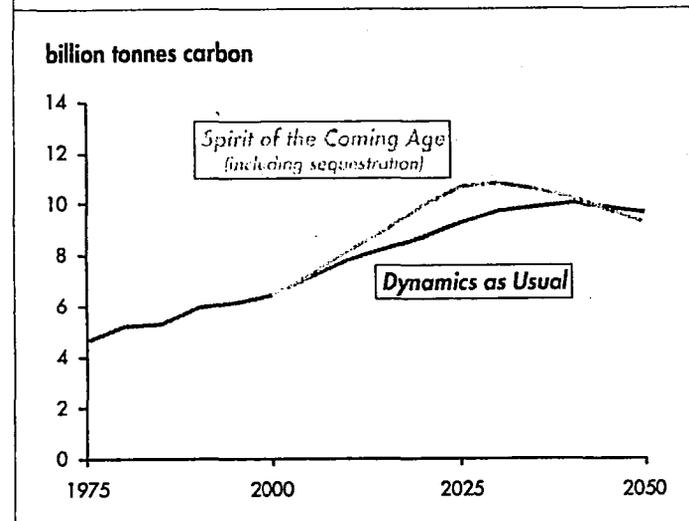
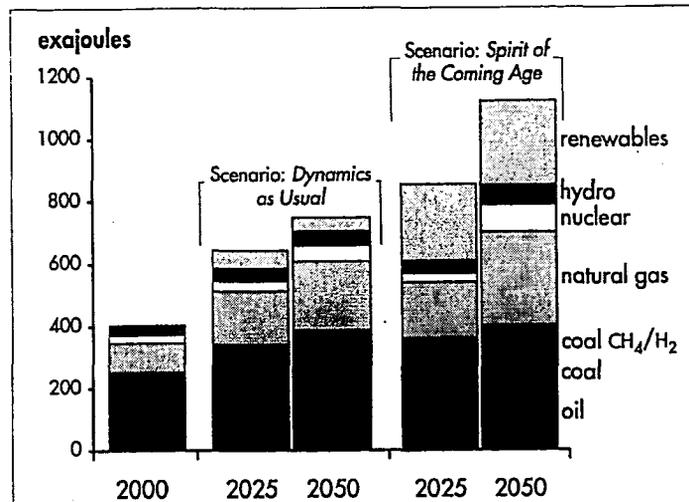
The early decades of the century see advances in the efficiency of internal combustion engines and hybrids, as well as a rapid increase in natural gas use. Sustained expansion of renewable energy only starts after developments in energy storage around 2025. Scarcity of oil drives demand for biofuels. By 2050 renewables supply a third of energy.

The other is a switch to hydrogen, made possible by technological innovation.

Initially, hydrogen comes from fossil fuels, supported by sequestration. Natural gas becomes the major fuel. Demand for hydrogen drives the expansion of both renewables and nuclear after 2030.

These scenarios – and I have given only the barest bones of a rich analysis – suggest that a dynamic energy system can respond to those challenges over the next half century. It can deliver the energy required to raise living standards

Further details of these and other Shell scenarios can be found on: www.shell.com/scenarios



everywhere. It can provide the diversified supplies on which security depends. It can deliver cleaner energy.

And, it can – in both scenarios – halt the rise in carbon dioxide emissions. By 2050 atmospheric concentrations would be on track to stabilise below the 550 parts per million level some cite as a safe maximum. (Figure 4)

Let me be clear, these are scenarios not projections, still less prophecies. The future is always obscure. We will have to adapt our approach to this challenge as we learn. Scenarios help us to explore the complex and dynamic possibilities for change.

I say complex because one thing is clear. There are no quick fixes to this challenge.

In particular, there is no quick fix by shifting rapidly to renewable energy, as

Figure 3: Shell scenarios: world energy supplies 2000-50

Figure 4: Shell scenarios: carbon dioxide emissions from energy

“A dynamic energy system can respond to those challenges over the next half century.”

some suggest.

We may be able to rely on renewables in the long-term, although that requires technological advance. And we can do much now to push them forward – developing the technologies, testing the practicalities, driving down costs, making them commercial. We are doing this in Shell.

But there are many hurdles to overcome – not least significant environmental challenges – before renewables can offer the affordable mass energy the world needs.

Let me stress again that the energy system is more than just energy companies. Only some 15% of the carbon dioxide produced over the life of an average car comes from making the fuel. The other 85% comes from driving the vehicle.

The system involves all of us who affect the way energy is delivered and used, including those who establish the policy framework which shapes how this happens.

And, of course, we all have choices to make as consumers and citizens.

Do we need to take action?

But let me step back a bit. Do we really need to take action?

There is compelling evidence that climate change is a threat. We know that greenhouse gas emissions from human activities – largely burning fossil fuels – bring about long-lasting atmospheric changes likely to affect climate. And our world does appear to be warming. The IPCC forecasts significant changes in temperatures and sea levels.

There are huge uncertainties about the risks and the impact. Further research is essential. But we can't wait to answer all questions beyond reasonable doubt.

There will always be uncertainty which we need to cope with.

That means balancing climate risks with others. Such as the risk of inhibiting the economic growth necessary to raise living standards, or of aggravating geopolitical tensions by jeopardising energy security.

But doing research is not enough. We need to act.

We need to do so just because there are no easy fixes. So we can

- learn how to respond,
- test different possibilities,
- build the foundations for long-term change,
- and retain the flexibility to adapt to developing understanding.

There is much that can be done without jeopardising economic growth – doing things that help us to meet other energy challenges.

A commercial response

We recognised this six years ago in Shell, and committed ourselves to playing our part.

Our customers, our employees, our shareholders expect us to do so. This is true all over the world, although feelings are stronger in some places than others. In Europe feeling on this issue is very strong, colouring people's attitudes more widely.

We also see commercial opportunities from being ahead of the game.

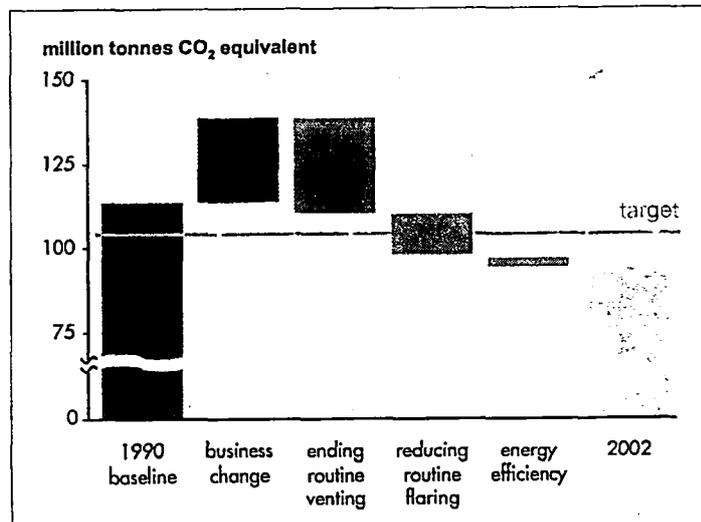
We aim to do two things. Reduce our greenhouse emissions from producing energy. And help our customers reduce their emissions from using it. We will do this while continuing to meet our customers' needs, profitably and competitively.

What have we achieved so far?

Despite the growth of our business we have already reduced our greenhouse

“There is much that can be done without jeopardising economic growth – doing things that help us to meet other energy challenges.”

Figure 5: Shell greenhouse gas reduction 1990-2002



gas emissions by 10% from the 1990 level – by ending routine gas venting, reducing gas flaring and improving energy efficiency. And we made money doing so. (Figure 5)

Meeting this 2002 reduction target was an important milestone, giving us confidence that we are on the right track.

So we reaffirm our commitment to manage our greenhouse emissions so that they are still at least 5% below the 1990 level in 2010.

That's an ambitious target, as our business expands to meet growing energy demand. And you won't have to take our word for it that we are doing what we say. Our progress will be audited by outside observers and transparently reported.

Meeting our commitment

How will we do it?

First, by continuing to cut routine gas flaring, ending it by 2008.

Second, by pursuing significant improvements in energy efficiency, building on work we have done ourselves and in collaboration with the Rocky Mountain Institute.

Third, by developing and applying new technology to reduce the impact of our operations – and then selling our technology and expertise to others.

We drive this by insisting that the potential costs of greenhouse gas emissions – for example from carbon taxes or permit schemes – are taken into account in all our projects.

And we are leading the way in using emissions trading to drive efficient reduction. Shell Trading is already doing good business from trading environmental products in 15 different markets.

But, as I stressed earlier, producing fuels only accounts for a small part of total emissions. We are also contributing to reducing the impact of our customers' energy needs.

First, by enabling them to use more natural gas, the most important medium-term response.

Here in the United States, for example, we are pursuing new gas reserves in the Rockies. We also working

hard to deliver liquefied natural gas to the American market, helping to diversify energy supplies. The opening of the Cove Point terminal in Maryland this year will expand this capacity.

Second, by delivering better fuels and lubricants.

Very low sulphur fuels can help modern vehicles deliver improved fuel economy, although the downside for us is that the extra processing pushes up refinery emissions.

Third, by working to commercialise alternative forms of energy.

We first worked on hydrogen fuel cells 30 years ago. But the time wasn't right. It may be now – particularly following the strong support for research from President Bush.

We are developing key enabling technologies for hydrogen with partners in the US and elsewhere. We also support projects to test the practicalities, including the Californian Fuel-Cell Partnership, which hopes to put 60 fuel-cell vehicles on the roads this year. And just last week we announced an agreement with General Motors to test hydrogen fuel cell vehicles and refuelling in Washington DC – installing the first hydrogen fuel pump at a US retail station.

We are building a commercial renewables business. Here in the US we now have more than 230 megawatts of wind capacity in Texas, Wyoming and California.

We are working to commercialise bio-fuels that can be blended with gasoline and diesel to reduce emissions.

And we have one of the largest global solar energy businesses, which is playing a part in widening access to modern energy by providing affordable solar systems for rural communities in China, India, the Philippines, South Africa and Sri Lanka.

Fourth, by developing ways of dealing with carbon dioxide.

This includes working with other companies to test sequestration, as well as researching ways of fixing carbon dioxide in inert building materials.

These actions all have one thing in

“Despite the growth of our business we have already reduced our greenhouse gas emissions by 10% from the 1990 level. And we made money doing so.”

“We reaffirm our commitment to manage our greenhouse emissions so that they are still at least 5% below the 1990 level in 2010 ... an ambitious target, as our business expands to meet growing energy demand.”

common, we see them as business opportunities. Pursuing them is part of the continuing drive to create new, long-term sources of value for our shareholders by offering new choices to customers.

Working together

Responding to the climate threat effectively and efficiently is made harder by the differences among key actors, and the rhetoric which inflames them.

We need to appreciate and engage with different views.

The best place to start would be a new dialogue to address the lingering animosity between the United States and Europe on issues like climate change.

Flying over for this speech, I had the distinct impression that the Atlantic is getting wider. Today the focus of that rift is on Iraq. But differences over environmental issues have hardened attitudes.

With a \$30 billion footprint in the United States and a similar presence in Europe, we have a vested interest in the best possible relations on both sides of the Atlantic.

And we're not alone in that aspiration. I am the Chairman of the World Business Council on Sustainable Development – a coalition of 160 international companies from 30 countries, including some of the largest US corporations. On climate change we seek to create a 'big tent', bridging divisions and working for a common business approach.

I hope we can apply the same principles to the transatlantic dialogue.

Because, when you reach behind the rhetoric, look beyond the stereotypes – when you sit down with leaders from Europe and the United States to discuss an issue like climate change – you find much common ground. We need to plant that common ground with seeds of practical action.

Thinking about long-term solutions is essential. But it is futile to get bogged down in differences over details, which are bound to need changing as our understanding develops.

What matters is that we start taking

action and learning from it, while retaining the flexibility to respond to that learning.

We need to concentrate on areas of agreement – of which there are many – and on action linked to solving other challenges, such as enhancing energy security.

I believe that the recent emission plans announced by the US administration will do much to kick-start action here.

We may even learn that it is easier than some fear.

But it requires working with others.

Business competition drives innovation and improvement. But we also need to work together.

For example, I am involved in the World Business Council's 'Sustainable Mobility' project which brings together major energy and vehicle manufacturing companies to explore ways of achieving the mobility modern societies require in a sustainable way.

Another focus for the Council is on improving eco-efficiency – delivering the competitively priced goods and services people need while reducing the ecological impact and resource intensity. We learn from each other's experience.

Business has a natural bias to taking action. But we don't operate in a vacuum.

We also gain by cooperating with others, learning from fresh perspectives and expertise. The Athabasca oil sands project provides a new North American source of high quality fuel. We are also working – with the help of an independent advisory panel – to reduce life-cycle greenhouse emissions to 6% less than those from imported oil by 2010.

Another example is the Global Gas Flaring Reduction Partnership which now involves governments, companies and NGOs working together to promote ways of cutting flaring.

That brings me to the central role of governments.

What business needs from governments is not abstract declarations or unspecified targets, with little indication of how they are to be met.

“Pursuing these business opportunities is part of the continuing drive to create new, long-term sources of value for our shareholders by offering new choices to customers.”

“When you reach behind the rhetoric, look beyond the stereotypes, you find much common ground. We need to plant that common ground with seeds of practical action.”

We need stable, market-based frameworks that encourage and enable innovative action. In some areas – such as emissions trading – these need to be harmonised across borders.

Finally, we also need to work with academia – harnessing research capabilities, participating in collaborative thinking, and supporting education.

I know that this Center will play an important role in all three areas.

Going forward

Where do we go from here?

The first imperative is to dispel some myths.

Business is part of the solution, not the problem. Renewables offer no quick fix, but have a vital long-term role. Taking action on climate doesn't jeopardise prosperity. Growth drives progress. Curtailing growth in rich countries would do nothing to help the poor in an interdependent global economy.

The second imperative is to find common ground.

There is much more agreement than rhetoric suggests. Focusing on practical action is the best way to find it. It is also the best way to move forward. These are difficult and complex issues. We can only progress through learning.

I know that many look for binding long-term commitments because they don't trust companies and governments to deliver. I can't convince them that they should ... and wouldn't want to try.

The only way is for us to show that we do deliver.

But I know that companies – and governments – are by their nature responsive to the expectations of those on whom they depend. And I know that our customers, shareholders, and employees – here in the US as well as elsewhere – expect us to help find solutions. We're responding to those expectations.

There is still great uncertainty about this threat. But taking action now will enable us to respond better whichever way our understanding develops.

We can't afford not to take action.

"Taking action on climate doesn't jeopardise prosperity. Growth drives progress. Curtailing growth in rich countries would do nothing to help the poor in an interdependent global economy."

"There is still great uncertainty about this threat. But taking action now will enable us to respond better whichever way our understanding develops. We can't afford not to take action."

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CREATION DATE/TIME:13-MAR-2003 09:47:57.00

SUBJECT:: FY 2004 CCRI Program Descriptions and Milestones

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TEXT:

Please see the attached PDF file to view the FY 2004 Climate Change
Research Initiative (CCRI) Program
Descriptions and Milestones. This document is now public.

Please let me know if you have any questions or have any difficulties
Page 2

CEQ 004606

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opening the file.

Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944

- FY 2004 CCRI.PDF===== ATTACHMENT 1 =====
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TEXT:
Unable to convert NSREOP0101:[ATTACH.D36]SREOP01300EN5Q1.001 to ASCII,
The following is a HEX DUMP:

===== END ATTACHMENT 1 =====

 Theodore W. Ulliot
03/18/2003 06:27:13 PM

Record Type: Record

To: Noel J. Francisco/WHO/EOP@EOP, Theodore W. Ulliot/WHO/EOP@EOP
cc: Phil Cooney/CEQ/EOP@EOP, Kyle Sampson/WHO/EOP@EOP
Subject: Re: Washington Times note on US Climate Action Report

Will do. I need to pick up the final, signed version from David Leitch. Phil, can you give me your fax number? Thanks.

----- Original Message -----

From: Noel J. Francisco/WHO/EOP
To: Theodore W. Ulliot/WHO/EOP@EOP
Cc: Phil Cooney/CEQ/EOP@EOP,
Kyle Sampson/WHO/EOP@EOP
Date: 03/18/2003 05:46:42 PM
Subject: FW: Washington Times note on US Climate Action Report

Ted -- Would you shoot Phil the letter? Thanks, Noel
----- Forwarded by Noel J. Francisco/WHO/EOP on 03/18/2003 05:50 PM -----

Phil Cooney
03/18/2003 05:46:12 PM
Record Type: Record

To: Kyle Sampson/WHO/EOP@EOP, Noel J. Francisco/WHO/EOP@EOP
cc:
Subject: FW: Washington Times note on US Climate Action Report

Kyle and Noel, Does either of you know what letter (reportedly from WH Counsel's office) the Times is referring to? thanks, Phil
----- Forwarded by Phil Cooney/CEQ/EOP on 03/18/2003 05:44 PM -----

Kameron L. Onley
03/18/2003 05:24:11 PM
Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP
cc:
Subject: FW: Washington Times note on US Climate Action Report

Do you have a copy of the letter referenced here? Kam

CEQ 004609

002919

----- Forwarded by Kameran L. Onley/CEQ/EOP on 03/18/2003 05:28 PM

"Navaro, Ann" <Ann.Navaro@usdoj.gov>
03/18/2003 04:57:46 PM
Record Type: Record

To: Kameran L. Onley/CEQ/EOP@EOP
cc:
Subject: FW: Washington Times note on US Climate Action Report

Kameran - Do you know what lette this blurb is referring to? Can we get a copy of it? Thanks. Ann.

-----Original Message-----

From: Toth, Brian
Sent: Tuesday, March 18, 2003 4:52 PM
To: Navaro, Ann
Subject: Washington Times note on US Climate Action Report

From the Washington Times - <http://www.washingtontimes.com/national/inbeltway.htm>
Getting warmer?

The Competitive Enterprise Institute in Washington is abuzz about the letter it received last week from the Office of White House Counsel, its subject man-made global warming - or lack thereof.

In the letter, the White House denied impropriety surrounding an Environmental Protection Agency "Climate Action Report" submitted to the United Nations outlining U.S. positions on catastrophic man-made global warming.

But the climate report, according to the CEI, basically repackages findings from the "National Assessment on Climate Change," a document earlier disavowed by the Bush White House.

The administration distanced itself from the assessment when settling a lawsuit filed by CEI counsel Christopher Horner on behalf of Republican lawmakers Sen. James Inhofe, Oklahoma Republican and Reps. Jo Ann Emerson of Missouri and Joe Knollenberg of Michigan, among other parties.

The White House contended the global-warming assessment was "not policy positions or formal expressions of the U.S. government."

But now the administration appears to have flip-flopped, putting its stamp of approval on the latest climate report sent to the United Nations.

Meanwhile, eleven state attorneys general have seized Uncle Sam's "spooky tale," as the CEI counsel calls the report, "to file lawsuits demanding the most expensive regulatory undertaking in U.S. history, given that the U.S. now 'admits' it."

CEQ 226RC

An abuse of power

US courts should not punish companies for human rights violations committed overseas



PATTI WALDMEIR
LEGAL COUNSEL

There is nothing quite so distasteful as the naked arrogance of American power, on or off the battlefield.

As we draw towards hasty war with Iraq, all eyes are focused on the potentially spectacular consequences of that planned act of hubris. But from the US court system come subtler, more insidious signs of a lone-ranger approach to international justice: a rash of recent lawsuits that seek to punish human rights abuses abroad by targeting US corporations at home.

In the best traditions of American legal creativity, US plaintiffs' lawyers have revived a dormant 18th-century law and made it their chief weapon in a 21st-century battle over corporate responsibility in an age of globalisation.

Some 25 lawsuits have been filed against big US and multinational corporations under the Alien Tort Claims Act of 1789. The Act - just one sentence long - gives foreigners the right to sue in US courts for wrongs committed "in violation of the law of nations or a treaty of the United States".

Human rights activists have tried to use that statute, brief and vague as it is, to hold US companies accountable for everything from torture and rape by foreign governments to poor environmental conditions abroad. US multinationals,

and the companies that insure them, are becoming increasingly concerned that the rising wave of such lawsuits may soon carry some to victory.

So far, that has not happened: no such suit against a corporation has yet gone to trial. But last September, a three-judge panel of the US court of appeals for the ninth circuit - famous for its espousal of liberal judicial causes - ruled that a suit could proceed against Unocal, the energy company, alleging it had aided and abetted human rights abuses committed by the Burmese military in connection with an oil pipeline project.

The appeals court recently decided to rehear that case in June, before a full panel of judges. The decision will be closely watched by those who wish to open a new legal front in the war against globalisation.

It may seem the worst of times to be defending either foreign despots or corporations of any stripe in a US court. In post-Enron, pre-war America, the morality of such cases appears deceptively simple: companies that profit from foreign oppression, directly or indirectly, should bear some responsibility for it.

Just as US courts and legislatures are on a mission to impose corporate responsibility for accounting scandals, many are seeking

ways to enforce a new morality on multinationals operating overseas.

Consider the recent rash of cases filed against companies that did business in South Africa under apartheid. They appear to represent a new trend in the litigation: targeting companies not for direct involvement in wrongs but merely for doing

business in suspect states.

The suits name International Business Machines and Citigroup, Barclays and BP, General Motors and Ford and a host of other banks and energy companies, for operating legally in South Africa. Filed by the same crusading lawyers who forced Swiss banks to settle the Nazi gold lawsuits, they target business for "aiding and abetting" apartheid.

The plaintiffs are suing IBM because, the lawsuit alleges, it provided the computers to control the movement of non-whites under South Africa's notorious "pass book" system.

They target carmakers for selling the armoured vehicles used to patrol black townships. And they attack multinational banks that "provided the funding that enabled South Africa to expand its police and security apparatus".

For those old enough to have boycotted Barclays as students in the 1970s, these are familiar arguments: bite the hand that feeds South Africa and apartheid will starve.

I lived in South Africa for the 10 years when economic sanctions were supposed to be starving Afrikaners into submission and I saw the best-laid plans of activists backfire. Apartheid did not end because I withdrew my account from Barclays - (which I did); if anything, economic sanctions merely hardened Afrikaners' resolve.

Similarly, it seems ludicrous to assume that lawsuits under the Alien Tort Claims Act will cause foreign miscreants to mend their ways. They may have other positive effects, such as generating publicity or satisfying the victims' thirst for vindication.

But their unintended consequences are likely to be more extensive. They may cause foreign regimes to behave worse rather than better, seriously harm

bilateral relations with target states, hurt US corporations and livelihoods and undermine the US justice system.

Surely America's first Congress, which wrote the 1789 law, did not intend it to be used to regulate what South Africans did to other South Africans on South African soil.

Altering the behaviour of foreign states is the business of diplomats or soldiers but not of judges. The US constitution gives the foreign affairs power to the executive branch of the US government. US judges have neither the expertise nor the legitimacy to decide what are in effect domestic disputes imported from overseas.

In the landmark case that inspired the recent litigation, a federal judge said such suits represented a "small but important step in the fulfilment of the ageless dream to free all people from brutal violence". They do no such thing: such suits are an exercise in judicial hubris that reflects a broader arrogance of power. They should be stopped before they go any further.

waldmeir@aol.com

I HEREBY DECLARE THIS TERRITORY FAIR GAME FOR THE AMERICAN LEGAL PROFESSION



ROGER BATE



Cold and Calculating

By Paul Georgia

03/06/2003

The entire northern hemisphere was recently hit by a cold snap that had many people longing for the good old days of global warming.

China, for example, experienced unusually high amounts of snowfall. Beijing, the capital city, received heavy snowfall for six consecutive days, the longest consecutive snowfall in that city in 128 years. China's largest desert, Taklimakan, received 14 inches of snow, and a 700-mile stretch of the Yellow River froze over. Vietnamese villagers, who had never seen snow in their lives, awoke to a world blanketed in white. In northern India and Bangladesh, more than 250 people died from exposure as temperatures dropped to below freezing.

In Norway, record cold temperatures combined with record high electricity prices leading to the tragic deaths of several elderly people. Finland experienced record cold temperatures, and the Baltic Sea experienced more extensive sea ice cover than had been seen in decades with ice thickness being two to eight inches greater than normal. In Russia, 40 ships were trapped in the ice in the Gulf of Finland. Moscow reached temperatures as low as -37 degrees Celsius, and as many as 23,000 people were without heat as antiquated systems broke down.

This is certainly not what one would expect in a world being warmed by the buildup of greenhouse gases. Of course, one must be careful inferring long-term climate trends from the current weather. For years, global warming spinmeisters have been making a living off cherry-picking weather events to frighten the public.

In this case, however, current weather, which is due to blasts of freezing Arctic air, coincides very well with what has been happening long term over the coldest regions of the Earth and should give pause to those pushing the global warming hypothesis. Climate models predict that warming should be most pronounced in the coldest regions of the earth. This is due to the fact that the air is very dry in those regions. The lack of water vapor, the most important greenhouse gas, makes places like Siberia, for instance, very sensitive to small changes in concentrations of other greenhouse gases such as carbon dioxide. The earth's polar regions should, if the models are correct, be experiencing an amplified warming relative to the rest of the planet.

Several scientific studies published over the last year have shown that the opposite is occurring. A study that appeared in EOS, a publication of the American Geophysical Union, found that since 1875 the Arctic has experienced two brief periods of warming of about 15 years apiece, one beginning in 1922 and the other in 1985. The warming experienced in the first period was nearly twice as large as that of the second period and reached a higher maximum temperature, although human greenhouse gas emissions were insignificant. The current warming period, on the other hand, is "statistically indistinguishable" from the temperature trend of the entire northern hemisphere. The authors conclude that, "The air temperature and ice data do not support the proposed polar amplification of global warming." This finding "poses severe challenges to generating credible model-based projections of climate change."

Data from the Antarctic also fail to bear out climate model predictions. A study in Nature found that the Antarctic is actually cooling. According to the authors,

Wanted from the 108th Congress: A pro-energy energy bill that works

By Marto Lewis, Jr.

The great energy policy debate of 2003 is in full swing, and it's déjà vu all over again.

Quickly returning to center stage is the sterile controversy over who has the best plan to reduce America's "dependence" on imported oil. Is it the ANWR (drill oil in Alaska) gang? Or is it the CAFE (regulate consumers out of their SUVs) clique? Both sides talk as if oil imports were a national security problem — as if curbing our "addiction" to foreign oil were critical to defeating al Qaeda and dicing Saddam. That is silly.

As the Cato Institute's Jerry Taylor reminds us, Osama bin Laden's family made its fortune in the construction trades, not the petroleum business. The conflict with Saddam is not about securing access to Iraqi oil. Recall that after the Gulf War, the U.S.-led coalition embargoed sales of Iraqi oil. The United States is on the verge of war because Saddam is a treaty breaker, is building weapons of mass destruction and has links to terrorists who would have few if any compunctions about detonating such weapons on American soil.

The United States today imports 55 percent of its oil. In 1973, the United States imported only 35 percent of its oil. Was 1973 a good year for peace in the Middle East? Was it a time when Europe and America were untouched by hijacking, bombings, and other acts of terror emanating from or linked to the Middle East? Was it a time when we got lots of respect from the Organization of Petroleum Exporting Countries (OPEC)? The widespread notion — sometimes only half articulated — that cutting oil imports is essential to U.S. security is intellectually bankrupt, and can only confuse discussion of domestic energy policies.

The CAFE (anti-SUV) crowd is quick to point out that ANWR production would barely slow the growth in petroleum imports. But that is irrelevant. Opening ANWR to exploration and



THOMAS BUTLER

Lewis: CAFE would restrict consumer choice on big, heavy vehicles millions of Americans want.

to increase average fuel economy is to make fewer big, heavy vehicles — the very models millions of Americans want. Worse, CAFE's downsizing effects could have lethal consequences, because lighter, smaller vehicles provide less protection in crashes.

Some people suppose that reducing petroleum imports would make us less vulnerable to oil price shocks when war or civil conflict curtails oil shipments

concessions.

They should draw the line at any anti-energy initiative — any measure that would ration energy, build institutional capabilities for energy rationing, or legitimize energy rationing. There are at least three items in last year's Senate-passed "energy" bill that pro-market, pro-energy lawmakers should reject outright as deal breakers.

One deal breaker is any provision to establish a "Renewable Portfolio Standard" (RPS) for the electric power sector. An RPS is fundamentally a set-aside program — a corporate welfare entitlement for industries that would not exist in a free market.

Non-hydro renewable-energy technologies (wind, solar, geothermal, biomass, landfill waste) have such high capital costs and produce so little power that it is almost always cheaper to produce electricity from natural gas, the primary source of most new generating capacity. That is why, despite two-plus decades of multi-billion dollar state and federal subsidies, non-hydro renewables supply only 2.4 percent of total U.S. electric power.

Mandating the use of uneconomical energy sources will force consumers to pay more for electricity. It will ratify the Kyoto Protocol goal of restricting Americans' access to hydrocarbon fuels. It will also boost the political sector's power to play central planner.

Any RPS — even a scaled-down, 5-percent version — will imperil America's energy future. Whatever level it is initially

set at, the RPS will function as a floor, not a ceiling. Once enacted, it will strengthen the renewables lobby and grow like other entitlements. The potential to exploit consumers and distort energy markets is vast.

Another deal breaker is any "sense of Congress" resolution that affirms the Kyoto vision of an impending greenhouse apocalypse. Once Congress puts its seal of approval on pseudo-scientific alarmism, it will be constrained to adopt Kyoto-style policies — policies that chill the economy without benefiting people or the planet one whit.

A third deal breaker is any provision to establish a mandatory greenhouse gas emissions registry. This will set up the monitoring and enforcement framework for a future, Kyoto-style emissions cap-and-trade scheme. Mandatory reporting is just a step away from mandatory reductions. If you don't want to end up with energy rationing, then don't lay the groundwork for it.

Opening ANWR would be a spectacular victory for rational public policy. It would prove — for the thousandth time — that oil and gas production is compatible with good stewardship. But opening ANWR could be a Pyrrhic victory if purchased at the price of enacting the Kyoto vision or energy rationing. What would be the point of drilling for oil if Americans are not allowed to use it?

Marto Lewis is a senior fellow at the Competitive Enterprise Institute.

Opening ANWR to exploration and drilling could boost domestic U.S. oil production by 14 percent.

drilling could boost domestic U.S. oil production by 14 percent. That means tens of thousands of new jobs and tens of billions of dollars of additional GDP.

Those who would be most directly affected — Alaskans — support opening ANWR by wide margins. It is mind boggling that many who have never set foot in the state believe they have a right to cripple Alaska's economic development.

Like opening ANWR, tightening CAFE standards would also barely dent overall U.S. petroleum consumption. However, instead of creating wealth, higher CAFE standards would restrict consumer choice. Technologically, the easiest way

from abroad. Not so, as Taylor points out, even if we got all our oil from Texas, a Middle East war would raise gasoline prices just as much as if all our oil came from Iraq. Oil is a global commodity, with global market prices. In 1979, Britain got all its oil from the North Sea, yet the price spike from the Iranian Revolution hit Britain as hard as it hit Japan, a country totally dependent on petroleum imports.

Because the White House seems to think voters will reward the GOP if Congress passes an energy bill — any energy bill — Republican members may come under increasing pressure to make

THE HILL INTERVIEW

'It's unreasonable not to have an energy policy'

House Energy and Commerce Chair Billy Tauzin on the elements of a winning energy bill

By Jeff Dufour and Albert Elsele

Rather than run for the Senate seat vacated by Bennett Johnston (D) back in 1996, Rep. Billy Tauzin (R-La.) opted to stay in the House. A member of the Commerce Committee, Tauzin had just defected from the Democrats a year earlier.

While Rep. Mike Oxley (R-Ohio) was next in line to chair the Telecommunications and Finance Subcommittee for the GOP, Tauzin had more seniority, having been elected in 1980. "I remember going to [then-Speaker Newt] Gingrich [R-Ga.] and saying 'You insisted my seniority would be intact. Do I qualify?' And he said 'yes.' And with that in mind, I chose to stay in the House."

In the end, the subcommittee was split in two, with Tauzin taking the telecom half.

In a near rerun of the situation in 2000, Tauzin was named chairman of the newly minted Energy and Commerce Committee, while Oxley took over the Financial Services Committee.

It is these back room deals that have put Tauzin at the center of the House energy debate this year. His committee shepherded a comprehensive energy bill through the House last year, but it died in conference, largely because the House and Senate couldn't agree on whether to allow drilling in the Arctic National Wildlife Refuge (ANWR).

"That issue is not going to go away. 'If ever there was a case for ANWR, it's now," said the soon-to-be 60-year-old chairman in his office earlier this month. Even suggesting he may take a harder line this year, he said he made Senate Minority Leader Tom Daschle (D-S.D.) last year "a hell of an offer, a better offer than he'll ever see again, than anybody on that side will ever see again."

"The fact is that [Sen. John Breaux (D-La.) and I] offered the Democratic leadership a proposal that would not have devel-



PATRICK O. RYAN

Tauzin: 'The past year has made the energy situation even more precarious.'

oped one inch of that," he added. "It would merely have allowed the Native Alaskan population out their own privately owned land to develop their resources, and to allow them a two-acre footprint across the pipeline. That wasn't good enough. John asked the question, 'If 100,000 acres is too much, is one acre too much?' And the answer was 'yes.' It's become almost a religious shrine.... John suggested maybe we could build a pipeline like the St. Louis Arch that never touches the ground at all. Would that be satisfactory? They're absolutely uncompromising, unrelenting about ANWR. That's hard to deal with. I can deal with anything but that."

Nevertheless, he adds, "I don't think all the Democrat senators are like that. I think there's a formula that works."

And he's optimistic that he can find such a formula this year. As he puts it: "We're dealing with a different leadership now, and it's conceivable at least that if we put together a package that concedes enough environmental positives in it, in exchange for a rational pursuit of [natural] resources, maybe there's a shot to do that. I'm an eternal optimist."

He also notes that his "old friend," Senate Energy and Natural Resources Chairman Pete Domenici (R-N.M.) will chair a conference committee in this Congress, should each chamber again pass

a workable bill. "We're going to work in tandem," said Tauzin. As he and his staff obviously have some catching up to do...we're going to move first probably. The House leadership will coach the other [relevant] committees to deliver their products simultaneously so we can get a package to the Senate early rather than late."

Ken Johnson, Tauzin's spokesman, said the committee hopes to move a bill out of the subcommittee this week, the full committee by the end of March and the full House by Easter.

Tauzin suggested that the past year has made the energy situation even more precarious. "We obviously have the war in Iraq brewing, all the energy company scandals, the California mess," he said, adding that "we're in a transitional period with electricity. We debated and we had a pretty good consensus on most of the other items in the bill. Electricity is the one we didn't process.... And the marketplace itself is transitioning. It's moving from a local, monopolistic grid, to one that is more competitive on more open grids."

President Bush is also seeking funding for research into hydrogen-powered vehicles, to begin a rollout by 2015.

"I don't think that's unrealistic," said Tauzin. Recalling the development of the first green car, he said: "The battery packs

were bigger than the car. So all these start-up ventures never got anywhere. But you go to Detroit today, and they've pretty well got the battery thing solved. The biggest problem facing the transportation industry is getting a source of hydrogen, number one, nailed down, and two, creating an infrastructure, so you can fill up somewhere."

In fact, Tauzin is confident in the ability of technology to ameliorate many of our energy problems: "There is a progression in science in this country. It's not a simple one-to-one, geometric progression. The pace of scientific advancement accelerates."

But even the march of science brings with it its own set of new problems. Referring to the emerging issue of "net metering," Tauzin envisions a scenario in which "if you took the trouble to install a hydrogen system in your vacation home, how that system could be selling electricity to the grid when you're not there, and when you come back and use it, it's there for you, and if you need it you can buy power from the grid."

"Science is offering us all kinds of cleaner, smaller, safer nuclear fuel options that make a lot of sense for us to continue to explore and examine as new sources of clean, safe electricity."

Ditto for renewable sources of energy. "It's only two percent [of production] today," he said. "It's reasonable to believe that in the next 10 years, it will play a much higher percentage, as much as 10 percent. The problem with the Senate approach last year was that it was mandating on states that didn't have the resources, and punishing them if they couldn't do it."

For instance, he points out that "Louisiana produces 24 percent of the oil and 24 percent of the gas that the country consumes, but we don't have a lot of renewables, we don't have a lot of sunshine. We don't have hydropower. We've got a lot of hot air inside the government, but we don't have a lot of wind energy.... You need a program that's flexible."

Seeking out alternative energy, Tauzin stressed, is critical for reasons that are becoming more and more apparent. He notes that "in 2002, we were sending indirectly to Saddam Hussein about \$12.7 million a day, every time you tanked up, sending cash to Saddam. Today, [with oil] at \$30 a barrel, we're sending him over \$20 million a day. What's he been doing with it? Isn't that insane, that we're depending on the same fuel power that we're organizing our forces to defeat? Something's weird about that equation. I mean I swear I'm looking through the looking glass."

Alluding to this nexus between energy policy and homeland security, he concluded: "It is reasonable for us to debate and disagree over what we should do to create a good energy policy for our country. It is reasonable to disagree on what percentage of our effort ought to go into alternatives and conservation and new resources. It is unreasonable for us not to have an energy policy in the face of the danger of energy insecurity. Anybody who is not willing to see that, in my opinion, ought to go find some other work."

Landrien seat should have gone Republican

Billy Tauzin says the only bill in Louisiana to be passed by the House based on his view of the November 2002 election in the home state. Being a Republican may be just as good as being a Democrat in the state. Sen. Landrien held on to a Dec. 7 runoff by a 58-42 margin. It should have gone Republican. People who didn't vote in the second (election) voted in the first. It was a case of the second race emerging (Landrien) base and declining (Chalenger) Super (Terrell) base. The Republicans had painted Landrien as a liberal. But his side, they painted (Chalenger) as a liberal. The liberal base came out to vote. I was determined to emerge the center. But the base? But I backed up.

Washington Roundtable on Science & Public Policy

Please join us for a discussion

**EXTREME WEATHER EVENTS:
EXAMINING CAUSES & RESPONSES**

with

Salle Bailunas & Willie Soon

Tuesday, March 25, 2003 12:00 Noon
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on the 2nd anniversary of the U.S. withdrawal from the Kyoto Protocol.

Brief remarks by President George W. Bush

March 13, 2003

6 p.m. to 8 p.m.

Indian Treaty Room

Eisenhower Executive Office Building

Please RSVP by March 12th

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Not to or
from CO2

The sincerest form of flattery...

A half-completed, political, junk science first "National Assessment on Climate Change", (disavowed by the White House to resolve litigation exposing that it put the "awful" in unlawful?).

\$17 Billion

The annual cost to the U.S. economy of Kyoto-style greenhouse gas reductions that may be forced upon us now that the Administration resuscitated this "admission"?:

\$400 Billion

Receiving a denial of impropriety from a Republican White House, arguing "It depends on what the meaning of the word 'are' is":

Priceless

221, 15 November 2001, affirming Articles 4.2 and 12 as the operative authority). The administration explicitly used the NACC as the basis of Chapter 6 of this compendium.

To clarify, therefore, we do not in fact “contend that the citation and discussion of *Climate Change Impacts* in the [CAR] is inconsistent with the Bierbaum letter.” Instead, the obvious inconsistency is Chapter 6 being expressly drawn nearly in its entirety from, and in fact purporting to be little more than a mere recapitulation of, the unlawfully produced NACC that the White House appropriately disavowed. See, e.g., “Chapter 6 provides an overview of potential negative and positive impacts and possible response options, based primarily on *Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change*” (CAR Introduction and Overview, p. 5), and “[Chapter 6] is not intended to serve as a separate assessment in and of itself, but rather is drawn largely from analyses prepared for the U.S. National and IPCC Assessments” (CAR Chapter 6, p. 3). Also, the NACC’s continued dissemination, at <http://www.usgcrp.gov/>, and dissemination via CAR at www.epa.gov, further defeat the argument that NACC does not constitute official statements of the U.S. government.

The above plainly demonstrates that upon obtaining dismissal of plaintiffs’ complaint the administration employed the purportedly disavowed NACC as a “policy or position or official statement of the U.S. government.” This raises the second possible explanation offered for our disagreement, which starkly contradicts our specific negotiation with Mr. Berenson. The clear understanding of our agreement freeing the White House of our complaint was that the White House adopted and expressed a legal fiction regarding the use of these unlawful products. That fiction was that these “.gov” documents “were produced by the scientific community and offered to the government for its consideration.” In fact, pursuant to the organic statute, they were produced by the White House Office of Science and Technology Policy for use by the Congress and the Executive. (15 U.S.C. 2921, *et seq.*). Our agreement is only reasonably understood as disavowal of their use, not temporary abandonment of the statutorily designated policy document with the expectation it would be resuscitated upon withdrawal of the complaint

Doubtless some lack of coordination or supervision within other offices and not OWHC sophistication led to this effective abrogation. Still, as the above demonstrates, this deployment is nonetheless plainly contrary to our agreement as clearly intended by both parties. Arguing that OWHC cleverly dispatched with legislator plaintiffs because it depends upon what the meaning of the word “are” is, however, merely compounds this unfortunate situation. You are also likely aware that the NACC admits to only addressing 5 of the 8 statutory “shalls”, in its haste, and therefore does not exist for yet one more reason. The White House ought to take advantage of pending Federal Data Quality Act petitions against NACC and CAR, thereby reverting to your assurance in resolving our litigation.

Sincerely,

Christopher C. Horner

THE WHITE HOUSE

WASHINGTON

March 3, 2003

Dear Mr. Horner:

On behalf of the Office of the Counsel to the President, I write in reference to your e-mail of February 5, 2003 – addressed to Karl Rove and others – in which you state that “the Administration [has] reneg[ed] on the deal [that the Competitive Enterprise Institute (“CEI”)] struck with Brad Berenson in the WH Counsel’s office, to resolve [CEI’s] litigation against the National Assessment on Climate Change.” I understand the litigation to which you are referring to be the case of *CEI, et al. v. Bush*, DDC No. 00-02383. As you know, CEI and the other plaintiffs dismissed their complaint in that case following the issuance, on September 6, 2001, of a letter by Rosina Bierbaum, Acting Director of the Office of Science and Technology Policy.

Acting Director Bierbaum’s letter states that the documents comprising the national assessment of climate change (formally titled *Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change*) “are not policy positions or official statements of the U.S. government.” Rather, as the letter explains, the documents “were produced by the scientific community and offered to the government for its consideration.”

Your e-mail appears to contend that the citation and discussion of *Climate Change Impacts* in the document U.S. Department of State, *U.S. Climate Action Report 2002* (Washington, D.C., May 2002), is inconsistent with the Bierbaum letter. We do not agree. Dr. Bierbaum’s letter expressly states that the *Climate Change Impacts* documents had been “offered to the government for its consideration,” and does not purport to place limits on what use various Federal entities might make of those documents in the future. Accordingly, no matter what use has subsequently been made of the national assessment, there has been no “reneging” on the Bierbaum letter.

Sincerely,



David G. Leitch
Deputy Counsel to the President

Christopher C. Horner
Competitive Enterprise Institute
1001 Connecticut Avenue, NW, Suite 1250
Washington, D.C. 20036

cc: Karl C. Rove



COMPETITIVE ENTERPRISE INSTITUTE

Contact for Interviews:
Richard Morrison, 202.331.1010

ANWR OR ETHANOL? YOU DECIDE.

Washington, D.C., September 25, 2002—As the House-Senate conference committee on the energy bill takes up the most controversial issues this week, the Competitive Enterprise Institute suggests that two key provisions should be compared. Leading environmentalists claim that the House-passed provision to open 2000 acres of the 19 million acre Arctic National Wildlife Refuge to oil and gas exploration will not make a significant contribution to America's energy supplies. For example, Carl Pope, executive director of the Sierra Club, said, "Drilling in the Arctic Refuge won't address our nation's energy needs or make a dent in gas prices." Another expert, Leonardo DiCaprio, is quoted on the web site of the Natural Resources Defense Council: "As for the best way to reduce our oil dependence, the oil beneath the Arctic National Wildlife Refuge would never amount to more than a drop in the bucket." On the other hand, environmentalists support provisions in the Senate-passed version that would expand subsidies and mandates for renewable sources of energy.

CEI has compared one such provision—the expanded ethanol mandate—with the ANWR provision for potential energy production. Using government data, CEI estimates that the Senate's expanded ethanol mandate, which would require approximately 16 million acres of corn to be planted each year to produce 5 billion gallons of ethanol, could produce the same amount of energy as the USGS mean estimate of ANWR's energy reserves in 580 years. The calculations are explained below.

"ANWR may be a 'drop in the bucket' as Leonardo Di Caprio and other environmentalists claim, but it is a pretty big drop compared to what the environmentalists are trying to sell to the American people. The fact that it would take 580 years of growing corn on 16 million acres, an area larger than West Virginia, to produce enough ethanol to equal the probable amount of energy in ANWR reveals that the environmentalists are not serious. Their renewable energy proposals are fantasies designed to conceal their real agenda, which is to force Americans to use much less energy," said Myron Ebell, CEI's director of global warming policy.

To schedule interviews with Myron Ebell or Ben Lieberman, please call Richard Morrison at (202) 331-1010, ext. 266.

1001 Connecticut Avenue, N.W. • Suite 1250 • Washington, D.C. 20036
Phone: (202) 331-1010 • Fax: (202) 331-0640 • E-mail: info@cei.org • Web site: <http://www.cei.org>

September 25, 2002

An Open Letter to Senators John Kerry (D-MA), Joseph Lieberman (D-CT), Hillary Clinton (D-NY), Edward Kennedy (D-MA), Christopher Dodd (D-CT), James Jeffords (I-VT), Charles Schumer (D-NY), Lincoln Chafee (R-RI), Jack Reed (D-RI), Patrick Leahy (D-VT), Olympia Snowe (R-ME), Susan Collins (R-ME).

Dear Senators:

We are writing to inquire about your positions on the proposed offshore wind "farm" off Cape Cod and the Renewable Portfolio Standard in the Senate's version of the energy bill.

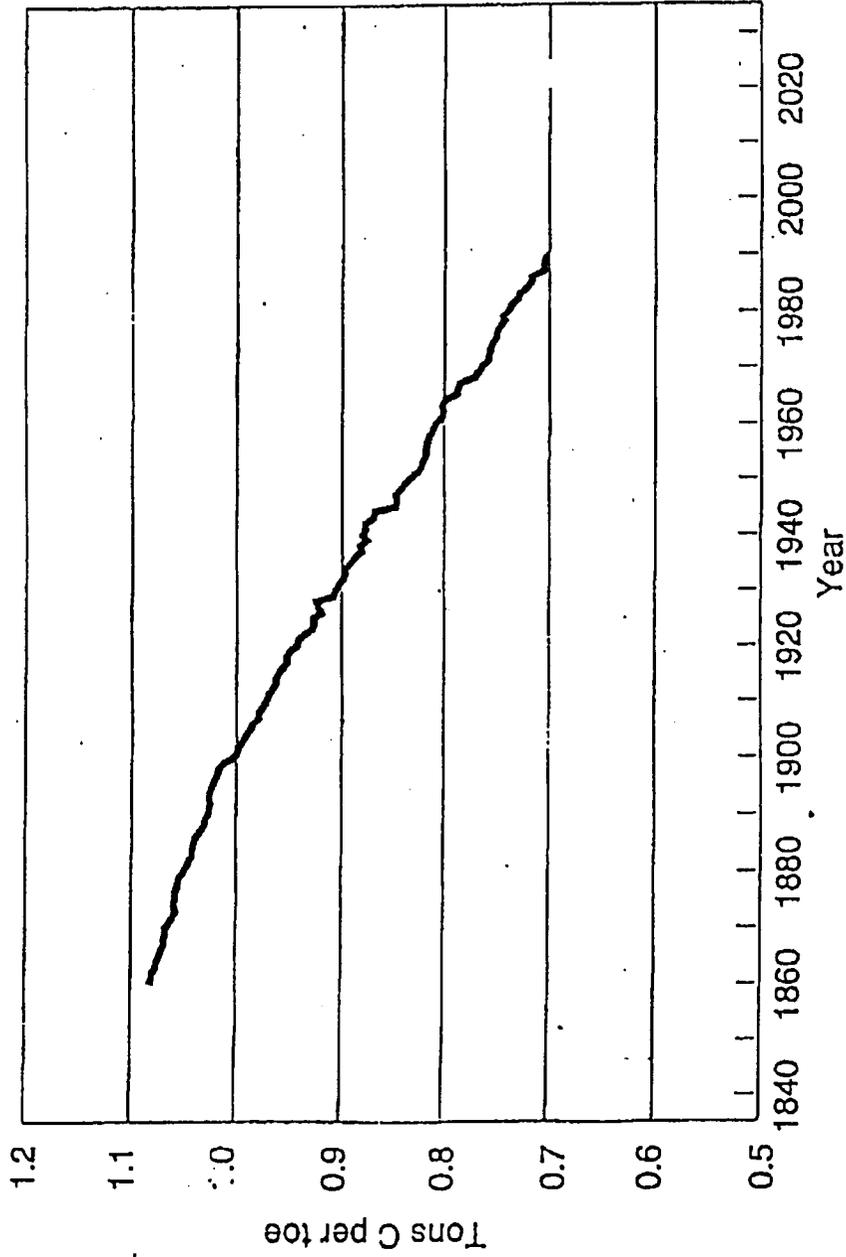
On March 14, 2002, you voted for Senate Amendment 3017 to the Senate version of H.R.4, which would establish a first-ever national electricity Renewable Portfolio Standard (RPS). This version of the RPS would have required privately-owned electric utilities to generate 20 percent of their power from renewable sources by 2020. The amendment was defeated despite your support, but the Senate-passed bill still contains a 10 percent RPS by 2020.

Although much more costly than conventional sources, renewable power may look attractive in the Northeastern States. Your States are against coal-fired power plants, want to shut down nuclear plants, have blocked new natural gas pipelines, and strongly oppose offshore oil drilling. The question arises, how is increasing demand for energy in the Northeast going to be met?

One possible alternative is wind power. The proposed Cape Wind project would consist of 170 wind turbines, each 426 feet high (the U.S. Capitol is 300 feet high), spread over 26 square miles of one of the world's premier fishing, boating, wildlife, and scenically beautiful areas. Since it would produce only about the same amount of power as a single small-to-mid-sized (250 Megawatt) natural gas plant (or about 1 percent of New England's annual consumption), clearly many more wind farms along the New England coast and around Long Island will be needed to meet surging demand.

Since you support forcing increased production of renewable energy across the nation through the Renewable Portfolio Standard, we assume that you also support the Cape Wind project and other similar proposals in your States. The fact that many local citizens

CARBON INTENSITY OF PRIMARY ENERGY World



Source: Nakicenovic 1994

Ausubel briefing

Bad Habit

Why the U.S. Is Still Hooked On Oil Imports

Politics, OPEC's Price Moves
Create Dependency, Ceding
A Crucial Economic Lever

Engine That Runs on Water?

All seven presidents of the past 30 years, Democrat and Republican alike, have tried to wean the U.S. off imported oil. All have failed.

In 1973, President Nixon pledged to end oil imports by 1980 through Project Independence. The U.S. imported 40% of its oil that year. In 1979, President Carter said imports wouldn't ever rise again. They did. Today, with the U.S. importing 60% of its oil, President Bush says hydrogen power will lead to energy independence.

Mr. Bush is almost certain to be proved wrong, at least in the next couple of decades.

Despite an increasingly energy-efficient economy, the U.S. remains hooked on foreign oil for two reasons. The Organization of Petroleum Exporting Countries, especially Saudi Arabia and its neighbors, is skillful in its management of oil prices to maintain America's dependence. And the U.S.

lacks the political will to do what's necessary to weaken the cartel or reduce the American appetite for oil.

With American troops poised for war in the Persian Gulf, which dominates oil exports and has two-thirds of global reserves, the consequences of oil dependency are starker than ever. The U.S. relies on some of the world's most volatile countries to supply a component that is critical to American society. Political turmoil in the region, in 1973 and 1979, produced oil-price jumps that ravaged the U.S. economy. In 1991, the U.S. sent 500,000 troops to the region to expel Saddam Hussein from Kuwait to ensure that he didn't grab an even-larger share of Gulf oil.

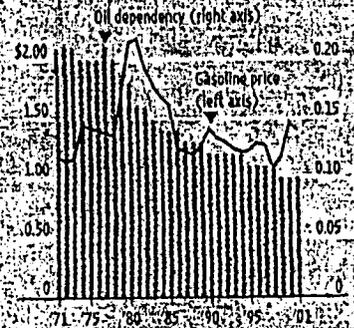
The primary issue is price. OPEC manages production to try to keep prices



By Bob Davis in
Washington and
Bhushan Bahree in
Paris

Efficiency Costs

The U.S. has made its biggest energy efficiency gains when gasoline prices were highest. Price of gasoline, in dollars per gallon, compared with how many metric tons of oil are needed to produce \$1,000 of GDP.



Note: Gasoline prices are measured in 1996 dollars.
GDP in 1990 dollars.
Sources: Cambridge Energy Research Associates,
Department of Energy.

higher than they would be if set in a free market, but low enough to make alternative fuels and technologies uncompetitive.

"If we force Western countries to invest heavily in finding alternative sources of energy, they will," Saudi Arabia's influential oil minister, Sheik Ahmed Zaki Yamani, said in a 1981 speech at a Saudi petroleum university. "This will take them no more than seven to 10 years and will result in their reduced dependence on oil as a source of energy to a point which will jeopardize Saudi Arabia's interests."

The U.S. could make rules to force Americans to use less oil or achieve the same end by raising the price through tariffs or taxes. Of the 19.5 million barrels of oil Americans consume every day,

Please Turn to Page A13, Column 1

Europe and Japan have especially high gas taxes—\$3.16 a gallon in Britain; \$1.75 in Japan—so drivers there overwhelmingly choose smaller, fuel-efficient vehicles. "To reduce oil consumption, the most obvious thing to do is to tax gasoline and make fuel economy a desirable feature," says Loren Beard, a senior manager for energy planning at Daimler-Chrysler AG in Detroit.

Overall, Germany, France and Japan need only half as much oil as the U.S. to produce the same amount of economic growth. Given the higher gasoline prices in Europe and Japan, the International Energy Agency in Paris expects their oil imports to grow more slowly in coming decades than those of the U.S.

Political Poison

But even small gasoline-tax increases are political poison in the U.S. The first President Bush agreed to a five-cent-a-gallon tax increase in 1990 despite his famous "no new taxes" pledge. Partly because of that, he lost his re-election bid. President Clinton pressed for a broad energy tax in 1993, but settled for a modest 4.3-cents-a-gallon levy. Officials in the current Bush administration say they considered higher gas taxes when they put together their first energy plan in 2001, but quickly rejected them in any form.

A tax increase by itself wouldn't solve the oil-import problem. Higher gas-pump prices would lessen demand for oil, which could lead to a glut and lower

wholesale oil prices. OPEC could cut back on production, to boost prices, as it did when oil prices slumped in 1998. If OPEC encouraged prices to sink, the U.S. and other consuming countries would have to consider soaking up extra supply—by greatly expanding the reserves of oil they maintain for emergency use—in order to prop up prices and prevent OPEC from gaining an even-stronger hand in controlling supply.

Boosting supplies of oil outside the Persian Gulf would also help make the U.S. less dependent on OPEC. But the Bush administration hasn't been able to persuade Congress to start drilling in the Alaska National Wildlife Reserve, and environmental regulations have put much of the Rockies, along with the Atlantic and Pacific coasts, off-limits for new rigs. Oil companies are using technology to extend the lives in old fields, but domestic supply continues its long swoon to about 5.8 million barrels a day, one-third less than when President Nixon set his energy-independence goal in 1973.

Eisewhere, Russia, central Asia and Africa are expected to broadly expand production over the coming decades. Even when taken together, however, these oil regions don't have the reserves to affect U.S. reliance on the Persian Gulf, which has the bulk of the world's reserves in cheap, easy-to-tap fields. OPEC nations "are back in charge," says Vito Stagliano, an energy official in the first Bush administration.

Rep. Charles Rangel of New York, the

top Democrat on the House Ways and Means Committee, says the U.S. may be able to use its military might to change the oil balance of power. If the U.S. seizes Iraq's oil fields during a war and turns Baghdad into a reliable ally, that could reduce the concerns about U.S. reliance on Persian Gulf oil. "If we control all that oil," Mr. Rangel says, "we don't need a damn gasoline tax." But the political consequences of the war are hard to foretell, especially if Saddam Hussein destroys Iraq's oil wells, or if other Gulf oil fields become terrorist targets. A democratic Iraq is also likely to see the economic virtues of strengthening OPEC, not weakening it.

President Bush is looking for a technological fix. He has seized on the technology of hydrogen-powered fuel cells, budgeting \$1.7 billion over the next five years to try to produce hydrogen-powered cars and trucks. But the challenges are daunting. Hydrogen now costs four times as much as gasoline, fuel cells are clunky and expensive, and the U.S. lacks an infrastructure of hydrogen pumps to match the nation's gasoline stations.

And OPEC is ever vigilant to the possibility that the U.S. could kick its oil habit. In the late 1980s, Kuwait's oil minister shooed away a businessman who approached him at a bar in a London Hotel. Sheik Ali Khalifa al-Sabah explained that the man "wanted to sell me on an engine that works on water. If I thought it worked, I would have bought it and killed it."

NASA's Earth Science Enterprise funded this research as part of its mission to understand and protect our home planet by studying the primary causes of climate variability, including trends in solar radiation that may be a factor in global climate change.

The solar cycle occurs approximately every 11 years when the sun undergoes a period of increased magnetic and sunspot activity called the "solar maximum," followed by a quiet period called the "solar minimum."

Although the inferred increase of solar irradiance in 24 years, about 0.1 percent, is not enough to cause notable climate change, the trend would be important if maintained for a century or more. Satellite observations of total solar irradiance have obtained a long enough record (over 24 years) to begin looking for this effect.

Total Solar Irradiance (TSI) is the radiant energy received by the Earth from the sun, over all wavelengths, outside the atmosphere. TSI interaction with the Earth's atmosphere, oceans and landmasses is the biggest factor determining our climate. To put it into perspective, decreases in TSI of 0.2 percent occur during the weeklong passage of large sunspot groups across our side of the sun. These changes are relatively insignificant compared to the sun's total output of energy, yet equivalent to all the energy that mankind uses in a year. According to Willson, small variations, like the one found in this study, if sustained over many decades, could have significant climate effects.

In order to investigate the possibility of a solar trend, Willson needed to put together a long-term dataset of the sun's total output. Six overlapping satellite experiments have monitored TSI since late 1978. The first record came from the National Oceanic and Atmospheric Administration's (NOAA) Nimbus7 Earth Radiation Budget (ERB) experiment (1978 - 1993). Other records came from NASA's Active Cavity Radiometer Irradiance Monitors: ACRIM1 on the Solar Maximum Mission (1980 - 1989), ACRIM2 on the Upper Atmosphere Research Satellite (1991 - 2001) and ACRIM3 on the ACRIMSAT satellite (2000 to present). Also, NASA launched its own Earth Radiation Budget Experiment on its Earth Radiation Budget Satellite (ERBS) in 1984. The European Space Agency's (ESA) SOHO/VIRGO experiment also provided an independent data set (1996 to 1998).

In this study, Willson, who is also Principal Investigator of NASA's ACRIM experiments, compiled a TSI record of over 24 years by carefully piecing together the overlapping records. In order to construct a long-term dataset, he needed to bridge a two-year gap (1989 to 1991) between ACRIM1 and ACRIM2. Both the Nimbus7/ERB and ERBS measurements overlapped the ACRIM 'gap.' Using Nimbus7/ERB results produced a 0.05 percent per decade upward trend between solar minima, while ERBS results produced no trend. Until this study, the cause of this difference, and hence the validity of the TSI trend, was uncertain. Willson has identified specific errors in the ERBS data responsible for the difference. The accurate long-term dataset, therefore, shows a significant positive trend (.05 percent per decade) in TSI between the solar minima of solar cycles 21 to 23 (1978 to present). This major finding may help climatologists to distinguish between solar and man-made influences on climate.

NASA's ACRIMSAT/ACRIM3 experiment began in 2000 and will extend the long-term solar observations into the future for at least a five-year minimum mission.

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For more information on the Internet, visit: <http://www.gsfc.nasa.gov/topstory/2003/0313irradiance.html>

For more information about ACRIM on the Internet, visit: <http://www.acrim.com>

ENVIRONMENTALISTS AGAINST WAR

THIS IS A WAR AGAINST THE PLANET AND ALL ITS PEOPLES

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Photo: Ed Oswald

Say NO! To War

10 REASONS ENVIRONMENTALISTS OPPOSE AN ATTACK ON IRAQ

An attack on Iraq could cause hundreds of thousands of deaths, pollute air, water and soil, and release chemical, biological and nuclear agents into the environment. Please take a look at "[10 Reasons Environmentalists Oppose an Attack on Iraq](#)," and encourage groups you're involved with to endorse this position paper.

- [Read the 10 Reasons](#) (english | español)
- [Endorse the 10 Reasons](#)
- [View current endorsements](#)

Statements from Environmentalists Against the War Press Conference

- [An International Environmental Call to Action](#) — January 1991
- [Let's Vote 'Thumbs Down' on Bush's Gulf War II](#) - Gar Smith, Earth Island Ir
- [Water, War and Iraq](#) - Juliette Majot, International Rivers Network

Statements by Environmental Organizations

- [Friends of the Earth International](#)
- [Greenpeace International](#)
- [Greenpeace USA](#)
- [Institute for Energy and Environmental Research](#)
- [Sierra Club](#)
- [Silicon Valley Toxics Coalition](#)
- [Deutscher Naturschutzring \(DNR\)](#), the umbrella organization of German environmental NGOs

Other Statements

- [The Center for Economic and Social Rights - Bush Claims 'Sovereign Right Destroy the Peace](#)
- [Former US Attorney General Ramsey Clark on impeachment](#)
- [David Krieger, Firing Squad](#)
- [Ross Mirkarimi - A War on the Environment](#)
- [Not In Our Name - Statement of Conscience](#)
- [Physicians for Human Rights](#)
- [Veterans for Common Sense](#)
- [Vote to Impeach](#)

attack on Iraq destroyed "not a single chemical or biological weapon." That may have been fortunate. On March 10, 1991, after the Gulf War had ended, US troops destroyed several weapons bunkers at Khamisiyah in southern Iraq. Five years later, the Pentagon admitted that the explosion released a cloud of CBW agents, exposing 100,000 US soldiers to mustard gas and sarin nerve gas.

5. Fighting a war for oil is ultimately self-defeating.

Our fossil-fuel-based economy pollutes our air, fouls our lungs and contributes to global climate change. The world needs to burn less oil, not more. Earth's remaining recoverable oil reserves are expected to peak soon and decline well before the end of the century. Waging wars to control an energy source that is finite will never achieve long-term national security. Oil-based economies must be replaced by technologies powered by clean, sustainable, renewable fuels.

6. Pre-emptive attacks are acts of aggression.

A "pre-emptive attack" would constitute an attack on the rule of international law, the dream of world peace embodied in the United Nations Charter, and the promise of environmental security enshrined in a host of global treaties. Attacking a city of 5 million people with hundreds of cruise missiles would constitute a war crime and a crime against humanity.

7. Aggression invites retaliation.

The CIA has concluded that Saddam Hussein would only be provoked to use chemical or biological weapons in self-defense - if the US launched an invasion bent on replacing him. Attacking Iraq would increase the probability of chemical, biological, and radiological attacks directed against US cities.

8. Increased military spending (to control access to the fuel that powers our oil-based economy) drains funds from critical social, educational, medical and environmental needs.

The war (and subsequent occupation of Iraq) is projected to cost as much as \$200 billion. Meanwhile the economy teeters and unemployment soars while the administration cuts funding for environmental stewardship and basic human needs.

9. Militarization and the war on terrorism are eroding America's freedoms at home.

The US PATRIOT Act has been used to persecute immigrants and fuels an atmosphere of racism and fear. The terrorist threat has been used to justify removal of public information databases that provided communities with critical data on industrial hazards. There has been a clampdown on the Freedom of Information Act, a valuable tool that had been used to hold polluting corporations accountable for their actions. The PATRIOT Act criminalizes legal forms of political opposition to controversial government policies, thereby threatening legitimate political and environmental activism.

10. The US has threatened to strike Iraq with nuclear weapons - the ultimate weapons of mass destruction.

In December 2002, a US strategy report claimed that the US "reserves the right to respond with overwhelming force - including through resort to all out options - to the use of WMD (weapons of mass destruction) against the

Greenpeace Responds to a Potential War in Iraq

Greenpeace is opposed to wars and actively works to eliminate weapons of mass destruction and promote peaceful non-violent solutions to problems. In addition to the tragic loss of life, wars often lead to environmental degradation and pollution. Preparation for war also leads to the development and dangerous use of weapons of mass destruction.

Greenpeace calls on the United States government to allow the United Nations inspections teams to work to disarm Iraq of its weapons of mass destruction and seek a diplomatic solution to this conflict. We fully support disarming Iraq, as well as all nations that have developed weapons of mass destruction, including the United States, but through peaceful means. The frameworks for disarmament already exist in the form of the Non-Proliferation Treaty, the Biological Weapons Convention and other disarmament treaties. It is clear that the time has come to recommit to and work within these frameworks.

Greenpeace shares the analysis that one of the primary motivations for aggressively pursuing a war with Iraq at this time is to gain access to Iraqi oil reserves for American interests. Iraq has the world's second largest proven oil reserves outside of Saudi Arabia, or 11 percent of world's total. However the best path to security and peace globally is to reduce our dependence on oil, and promote the development and use of clean energy technologies such as solar, wind and hydrogen. If the United States were to invest significantly in clean energy, it would make the United States less vulnerable to geo-political changes in the oil producing and exporting nations, including Saudi Arabia and Iraq. Additionally, reducing the United States' dependence on oil would help solve climate change, air pollution and curtail the pressure on our national treasures.

Greenpeace is working with businesses and governments throughout the world to promote clean energy as the best approach for global security and environmental protection. Greenpeace will continue to work to protect the future of the planet, as we have during times of both war and peace for more than 30 years.

CONTACT: Alisa Arnett, Greenpeace Media Department, (415) 255-9221 ext 330 <http://www.greenpeaceusa.org>

COOLER HEADS

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"May Cooler Heads Prevail"

March 19, 2003

A bi-weekly report on the politics, science, and economics of global warming

By the Competitive Enterprise Institute

Politics

Japan Rethinking Kyoto

Japan's industrial sector is beginning to grouse about its obligations under the Kyoto Protocol, which the government ratified last year. According to Taishi Sugiyama, a senior researcher at Japan's independent Central Research Institute of the Electric Power Industry, industry is putting considerable pressure on the government to rethink the Kyoto Protocol. Apparently, the government is listening.

Japan was one of the last countries to ratify Kyoto, partly due to strong opposition by industry groups and the Japanese Conservative Party, which favored voluntary reductions. But the government also felt obligated to ratify a treaty named for its ancient capitol. Now, nearly a year later, industry has become increasingly resentful of the Kyoto Protocol, said Sugiyama, who spoke to the World Resources Institute in Washington, D.C. last week.

Now the government is looking ahead to the 2005 negotiations when Kyoto signatories will discuss actions to be taken beyond 2013. Experts, such as Sugiyama, expect that the government will push for voluntary emissions reductions targets. Others disagree, however, saying that it would be very difficult for Japan to back away from the treaty.

Part of the resentment of the treaty comes from the assumptions the government used to determine its ability to meet the targets. For

example, it assumed that cuts in industrial emissions would be accomplished in large part through carbon leakage. In other words, heavy industry would close plants in Japan and open new plants on the Asian mainland, which the affected industries may have been surprised to learn. There was also widespread doubt that Japan would be able to meet its Kyoto targets, a sentiment the government apparently ignored.

Industry leaders also feel that the treaty is unfair. They argue that Japan is the only country that has enacted truly aggressive implementation policies, while the Kyoto Protocol allows European Union countries to buy emissions credits from less industrialized Eastern European countries, thereby avoiding the need for significant emissions reductions. Moreover, the EU has replaced much of its coal-fired capacity with natural gas since 1990, which serves as the baseline year for Kyoto reductions, thereby making the EU's target much less onerous.

Finally, industry argues that Japan made significant emissions reductions prior to 1990, when the government embarked on a tremendously costly twenty-year program to cope with the Arab oil embargo, making the 1990 baseline unfair to Japan. "We have already done much," said Sugiyama. "Still, Kyoto requires [Japan] to reduce emissions 6 percent. Given that situation, it's going to be extremely difficult to reduce emissions further."

Last October the government organized a committee to revisit the Kyoto agreement. The committee, made up of 30 stakeholders, half of which are industry representatives, will present

Editor: Myron Ebell

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Managing Editor: Paul Georgia



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global temperature," which is a mainstay of the debate. Such a thing doesn't exist, according to Essex. You can't add up temperature and take its average like you can with physical quantities such as energy, length, and so on.

"Thermodynamic variables are categorized as *extensive* or *intensive*," said Essex. "Extensive variables occur in amounts.... Intensive variables [such as temperature] refer to conditions of a system, defined continuously throughout its extent." For example, one could add the temperature of a cup of ice water to the temperature of a cup of hot coffee, but what does that number mean? It doesn't mean anything because there is no such thing as total temperature. Dividing that number by two to get the average doesn't mean anything either. Yet that is exactly what occurs when the average global temperature is computed.

Essex also pointed out that the internal energy of a system can change without changing the temperature and the temperature can change while the internal energy of the system remains the same. "This disconnect happens routinely in the natural world around us all the time," said Essex. "Ultimately this has to be so because temperature and energy belong to two fundamentally different classes of thermodynamic variables."

Global warming enthusiasts want us to believe that average temperature can tell us something about what is going on in the climate, but it is just a number with no physical content. To add insult to injury, Essex explained that there are literally an infinite number of averaging rules that could be used, some of which will show "warming" and others that will show "cooling," but the "physics doesn't say which one to use."

Essex also explained that the earth's so-called greenhouse effect does not work like a greenhouse. "Incoming solar radiation adds energy to the Earth's surface," he said. To restore radiative balance the energy must be transported back to space in roughly the same amounts that it arrived in. The energy is transported via two processes – infrared radiation (heat transfer) and fluid dynamics (turbulence).

A real greenhouse works by preventing fluid motions, such as the wind, by enclosing an area with plastic or glass. To restore balance, infrared

radiation must increase, thereby causing the temperature to rise. Predicting the resulting temperature increase is a relatively straightforward process.

But the "greenhouse effect" works differently. Greenhouse gases slow down outgoing infrared radiation, which causes the fluid dynamics to adjust. But it cannot be predicted what will happen because the equations which govern fluid dynamics cannot be solved! Scientists cannot even predict the flow of water through a pipe, let alone the vastly more complex fluid dynamics of the climate system. "No one can compute from first principles what the climate will do," said Essex. "It may warm, or cool, or nothing at all!" Saying that the greenhouse effect works the same way as a greenhouse, which is a solvable problem, creates certainty where none exists, said Essex.

Surely scientists are aware of the issues that Essex brings up (and several other equally devastating points that aren't discussed here). If so, then how have we come to a place where the media and politicians repeatedly state that there is a scientific consensus that the planet is warming up, it is caused by man, and the effects will be catastrophic? McKittrick offered a very convincing explanation. He discussed several relevant groups, but we'll focus on politicians and what McKittrick calls "Official Science."

Politicians need big issues around which they can form winning coalitions. Global warming is a good issue because, "It is so complex and baffling the public still has little clue what it's really about. It's global, so ... you get to have your meetings in exotic locations. Policy initiatives could sound like heroic measures to save the planet..., but on the other hand the solutions are potentially very costly. So you need a high degree of scientific support if you are going to move on it. There's a premium on certainty."

This is where Official Science comes in. Official Science is made up of staffs of scientific bureaucracies, editors of prominent magazines, directors of international panels, and so on. These members of Official Science aren't appointed by scientists to speak on their behalf, but are appointed by governments. They have the impossible job of striking "a compromise between the need for certainty in policymaking

the aid of nuclear power and would rely heavily on building renewable energy capacity as well as energy efficiency. The plan calls for a large increase in renewable energy production, requiring that 20 percent of the nation's energy be produced from renewable sources by 2020.

In a speech endorsing the plan, Blair claimed that the technology is available to make the steep reductions in CO₂ emissions without hurting economic growth. He also stated that, "It is clear Kyoto is not radical enough" and that he will "continue to make the case to the U.S. and to others that climate change is a serious threat that we must address together as an international community."

The *Financial Times* criticized Mr. Blair in a Feb. 25 editorial, stating that, "Having fixed the end, he has not willed the means." It goes on to say that the white paper "opens a necessary debate on the conflict between energy and the environment but does not provide an answer on how to combine them." The editorial noted that a *Downing Street* document published last year said that, "It would be unwise for the UK now to take a unilateral decision to meet the [60 percent] target in advance of international negotiations on longer-term targets."

It concludes that, "Eventually, the government will have to temper its moral passion for renewables with certain realities," namely with "awareness that renewable energies can never be a complete solution, because most of them do not work on calm or cloudy days.... If avoiding carbon emissions is the priority, this is better performed by nuclear reactors than anything else."

Science

Another Hit for the Climate Models

It's not everyday that the climate models take it on the proverbial chin. It just seems like it. In a paper presented at the Annual Meeting of the American Meteorological Society, Dr. Junhong Wang with the National Center of Atmospheric Research discussed his research team's findings that the amount of water vapor in the upper atmosphere is much greater than previously thought – at least over Oklahoma and Kansas.

The researchers have built a new radiosonde instrument, called Snow White (SW), which measures relative humidity more accurately than the old instruments, which have been the basis for all upper atmosphere climate records. The new radiosonde will serve as the new reference case from which all previous measurements will be calibrated.

In test runs over Kansas and Oklahoma, the researchers found that below six kilometers the old and new radiosondes agree reasonably well but then diverge at altitudes above six kilometers. At about 11.4 to 12.7 kilometers, SW found a supersaturation layer, which could be the cirrus cloud layer. Previous measurements found relative humidity of below 30 percent.

This finding is important because high altitude cirrus clouds do not block sunlight, indeed they are often invisible to the naked eye, but very efficiently block outgoing infrared radiation (heat), causing a net warming. Where humidity is high, however, the relative effect of greenhouse gases, such as carbon dioxide, on temperature is smaller than in low humidity areas.

That's why most anthropogenic warming is predicted to take place in extraordinarily dry (and cold) regions such as Siberia. If the humidity data used in a computer model is too low, then the model will overestimate the effect of greenhouse gases. And, the climate models will predict too much warming. The paper is available at www.ametsoc.org/AMS/index.html.

Melting in Arctic May be Natural

Researchers from the Norwegian Polar Institute and the Norwegian Meteorological Institute have compiled data from the ship logs of early Arctic explorers and whalers to determine the sea ice extent from 1553 to 2002.

What they have found is that the current retreat of ice observed in the Arctic occurred before in the early 1700s. While this evidence doesn't rule out that the current melting is due to man's greenhouse gas emissions, it certainly suggests that it may be entirely natural. "If you go back to the early 1700s you find that sea ice extent was about the same as it is now," said Chad Dick of the Arctic Climate Systems Study.

The researchers also found that sea ice has declined by about 33 percent over the past 135 years, but that most of that retreat occurred before significant manmade emissions of greenhouse gases. This also means that the current melting could be due to natural cycles. "The evidence at the moment is fairly inconclusive," said Mr. Dick. "The fact is there are natural cycles in sea ice extent and we're not outside the range of those natural cycles at the moment."

Mr. Dick also noted that if the current warming is indeed due to natural cycles, we should begin to see ice thickening again in the near future. It will take about ten more years at the current rate of thinning to get beyond the range that we'd expect if the decline in sea ice is due to natural cycles (*Globe and Mail*, February 27, 2003). The World Wildlife Fund is publishing the sea charts on CD-ROM (www.panda.org).

THE COOLER HEADS COALITION

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COOLER HEADS

Vol. VII, No. 4

"May Cooler Heads Prevail"

February 19, 2003

A bi-weekly report on the politics, science, and economics of global warming

By the Competitive Enterprise Institute

Politics

Maine Bill Would Prevent Kyoto Implementation

In an attempt to thwart Kyoto-style legislation and Kyoto-related activities in Maine, a bill has been introduced in the state legislature that would prohibit the State from spending any money to implement international treaties that have not been ratified by the U.S. Senate.

The bill may be the beginning of a backlash against efforts in New England to carry out Kyoto-style policies and to pressure the Bush Administration to do likewise. In 2001, for example, the governors of all six New England States signed an agreement with the Eastern Canadian provinces to reduce greenhouse gas emissions to 1990 levels by 2010 and to 10 percent below 1990 levels by 2020.

Also, State Attorney General Steven Rowe is one of several attorneys general who have threatened to sue the Bush Administration for failing to reduce greenhouse gas emissions to prevent global warming. Maine lawmakers have also sought to introduce legislation to restrict greenhouse gas emissions.

The bill, introduced by Rep. Henry Joy (R-Crystal), reads in part, "A state department or agency may not expend or award funds to implement, in whole or in part, an international treaty that the United States Senate has not ratified." The bill explains that "to implement" is any "means to take any action that has a

demonstrable and direct connection to specific requirements of any international treaty that has not been ratified by the United States Senate."

On Wednesday, Rep. Joy testified that Kyoto "really doesn't have anything to do with conservation. It's really about command and control – where you live, how you live and in some cases, if you do live." Joy introduced the bill on behalf of Jon Reisman, an economics professor at the University of Maine at Machias, who has worked to prevent such efforts.

Reisman calls the agreement between the New England States and Canadian provinces, "an unconstitutional foray into foreign policy." He has noted the agreement violates Article 1, Section 10 of the Constitution, which states, "No State shall enter into any Treaty, Alliance or Confederation.... No State shall, without the Consent of Congress... enter into any Agreement or Compact with another State, or with a foreign Power...."

Arab States Reject Warming Claims

Thirteen oil producing Arab states, including Saudi Arabia, Kuwait, Iraq and the United Arab Emirates, have signed a declaration dismissing global warming claims and asserting their right to produce and sell oil.

"Such unfounded allegations and doubts would make victims of the oil and gas sector and may result in a recession in world demand, thus harming the interests of producers," says the so-called Abu Dhabi declaration. The signatories

Editor: Myron Ebell

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Victoria nor Abraham Lincoln decreed a policy of decarbonization. Yet, the system pursued it." Decarbonization and our path to the hydrogen economy will happen regardless of government decrees or federal research money.

Ausubel also takes to task the UN Intergovernmental Panel on Climate Change for its assumptions on energy use. When Ausubel extrapolated decarbonization trends out to the year 2100 and compared it to the IPCC's 1990 "business as usual" (BAU) scenario he found that they bore little resemblance to one another.

The IPCC's BAU scenario was a flat line, which assumes technical stagnation or what Ausubel dubs the Breschnev Scenario. But properly understood, BAU is a technologically dynamic and progressive scenario that will eliminate CO₂ by 2100. The IPCC's 2001 Third Assessment Report uses 40 scenarios which show decarbonization and carbonization going in all different directions with no probabilities attached.

IPCC's Economic Assumptions Assailed

The *Economist* (February 13, 2003) has published an article featuring criticisms leveled at the UN's Intergovernmental Panel on Climate Change for the economic assumptions it used to come up with its temperature projections.

"In recent months," according to the *Economist*, "two distinguished commentators – Ian Castles of the National Center for Development Studies at Australian National University, formerly the head of Australia's national office of statistics; and David Henderson of the Westminster Business School, formerly chief economist of the OECD – have put together a critique of the panel's Special Report of Emissions Scenarios (SRES)."

The major points of contention are the assumptions about the gap between rich and poor countries and the speed at which the gap will be closed. The SRES based its projections of future output on GDP estimates that were converted into a common measure using market exchange rates. Because prices tend to be much lower in poor countries, this method significantly overstates the gap in average incomes between rich and poor countries.

The IPCC assumed that the rich countries will continue to grow and that in most of the 40 SRES scenarios the poor countries will close the income gap by the year 2100. The combination of the overstated gap and the assumption of convergence lead to vastly overestimated emissions scenarios.

Even more startling are projections that show the per capita incomes of those living in South Africa, Algeria, Libya, Turkey and North Korea overtaking the per capita incomes of Americans by 2100 by a wide margin. There are several other serious errors in the SRES scenarios as well. Castles and Henderson's analysis will be published in a forthcoming issue of *Energy and Environment*.

Renewable Energy in Decline

The Energy Information Administration has released a report showing that the consumption of renewable energy fell significantly in 2001. Much of the decline was attributed to a drought which curtailed the generation of hydroelectric power by 23 percent. But the report also noted that the equipment used to produce solar power is being retired faster than new equipment is being installed.

Much of that equipment was installed in the 1970s and 1980s when there were plentiful subsidies available for distributed solar power. But now the equipment is getting old and wearing out, and the subsidies are no longer available to replace it.

Even though the use of solar collectors and wind turbines has increased over the last few years, overall consumption of renewable energy fell by 12 percent in 2001, the lowest point in over 12 years. In all, renewables only account for 6 percent of the nation's energy consumption (*Energy Central*, February 18, 2003).

Science

Climate Variation is the Norm, not the Exception

A new report by Dr. David Wojick, which reviews six major National Academy of Sciences' studies published over the last five

University of Guelph, will give a Cooler Heads Coalition congressional and media briefing on their new book, *Taken By Storm: the troubled science, policy, and politics of global warming*, on Thursday, February 27, from 2:30 to 4:00 PM in Room 406 of the Senate Dirksen Office Building. Reservations are requested. To attend, please contact Myron Ebell at mebell@cei.org or (202) 331-2256. Include your name, telephone number, e-mail address, and institutional affiliation. Registered attendees will receive copies of the book, compliments of the Competitive Enterprise Institute.

THE COOLER HEADS COALITION

Alexis de Tocqueville Institution
Americans for Tax Reform
American Legislative Exchange Council
American Policy Center
Association of Concerned Taxpayers
Center for Security Policy
Citizens for a Sound Economy
Committee for a Constructive Tomorrow
Competitive Enterprise Institute
Consumer Alert
Defenders of Property Rights
Frontiers of Freedom
George C. Marshall Institute
Heartland Institute
Independent Institute
JunkScience.com
National Center for Policy Analysis
National Center for Public Policy Research
Pacific Research Institute
Seniors Coalition
60 Plus Association
Small Business Survival Committee

COOLER HEADS

Vol. VII, No. 5

"May Cooler Heads Prevail"

March 5, 2003

A bi-weekly report on the politics, science, and economics of global warming

By the Competitive Enterprise Institute

Politics

Court Orders EPA to Hand Over Climate Change Documents

The Environmental Protection Agency has been ordered by the U.S. District Court for the District of Columbia to produce "climate change" documents requested under the Freedom of Information Act by the Competitive Enterprise Institute (CEI), or to justify their withholding. CEI, a non-profit free market advocacy group, requested the documents to determine whether or not the agency was engaging in activities to implement the Kyoto Protocol "through the backdoor" in opposition to congressional prohibition.

"Now we can finally begin assessing how far the agency has gone toward backdoor implementation of the Kyoto Protocol," said Christopher C. Horner, CEI Counsel who filed the lawsuit. "We also remain fascinated by a point of which the Court took particular note: How does EPA explain their shift in alarmism from the global cooling scare of years past to the current emphasis on catastrophic global warming?"

The documents that the EPA has been ordered to hand over are expected to show that the agency has violated the "Knollenberg Provision," originally sponsored by Rep. Joe Knollenberg (R-MI). The provision prohibits the federal government from spending money to implement the Kyoto Protocol, which has not been ratified by the U.S. Senate.

"By this Order, the D.C. District Court joins CEI's puzzlement over the Administration's refusal to turn over documents on the basis that their release 'may potentially harm U.S. interests in ongoing Kyoto negotiations'," said Horner. "And it adds to the mounting public embarrassments over the refusal by various officials to execute the President's rejection of Kyoto, instead continuing to try to cut a deal for a treaty the President assured the public he rejected in America's interest."

The court ruling, said Horner, will likely expose attempted backdoor implementation during the Clinton Administration. The EPA has until March 31 to either produce the documents or explain to the satisfaction of the court why they are withholding them.

Analyst Shreds AG's CO₂ Case

State Attorneys General from several states have filed notice on two separate occasions this year of their intent to sue the U.S. Environmental Protection Agency for failing to regulate carbon dioxide. The first notice came on January 30, informing EPA Administrator Christine Todd Whitman that the Attorneys General of Massachusetts, Connecticut, and Maine planned to sue under Section 108 of the Clean Air Act (CAA), which they claim obligates Whitman to list CO₂ as a pollutant that endangers public health and safety.

The second notice came on February 20 when the three AGs, joined by four others representing New York, New Jersey, Rhode Island and

Editor: Myron Ebell

Managing Editor: Paul Georgia

Cooler Heads is published by the Competitive Enterprise Institute for the Cooler Heads Coalition, a subgroup of the 4 million member National Consumer Coalition, founded by Consumer Alert. Contact CEI at 1001 Connecticut Ave., NW Suite 1250, Washington, DC 20036, Tel: (202) 331-1010, e-mail: paulg@cei.org, web site: www.globalwarming.org.



COMPETITIVE ENTERPRISE INSTITUTE



Washington, informed Whitman of intent to sue unless she promulgates New Source Review Performance Standards for power plant emissions of CO₂ under section 111 of the CAA.

In a critique of the two letters, Marlo Lewis, a senior fellow at the Competitive Enterprise Institute, accuses the AGs of engaging in "mere word play" and a "sophomoric attempt to turn statutory construction into a game of 'gotcha'."

The question, argues Lewis, is "Did Congress delegate to EPA the power to regulate CO₂? When Congress enacted and amended the CAA, did it intend for EPA to set up a mandatory greenhouse gas control program?" The answer is clearly no, according to Lewis. As he has noted elsewhere and repeats in the current critique, CO₂ is not mentioned in any CAA regulatory provisions and only once in a non-regulatory provision. The clincher, however, is the statement within the non-regulatory provision that, "Nothing in this subsection shall be construed to authorize the imposition on any person of air pollution control requirements."

Moreover, the AGs want the EPA to declare CO₂ a pollutant under the National Ambient Air Quality Standards (NAAQS) program. But NAAQS is a program that deals with "place-specific air quality programs," which "measures local pollution levels against national air quality standards and seeks to remedy local problems via state implementation plans."

It doesn't make any sense to attempt to regulate CO₂ under the NAAQS provision because regardless of where the CO₂ is emitted, it has the same potential impact on the climate. "If EPA set NAAQS for CO₂ above current atmospheric levels, the entire country would be in attainment, even if U.S. consumption of hydrocarbon fuels suddenly doubled," says Lewis. "Conversely, if EPA set a NAAQS for CO₂ below current levels, the entire country would be out of attainment, even if all power plants, factories, and automobiles shut down."

The second notice of intent to sue is a new innovation in the AGs attempt to force the EPA to regulate CO₂. This one seeks to force Administrator Whitman to set New Source Performance Standards (NSPS) for CO₂ emission from electric generating units. NSPS requires different categories of stationary sources to meet

certain performances. Lewis points out that the NSPS program was enacted in 1970, "years before global warming was even a gleam in Al Gore's eye." Nor did Congress instruct the EPA to address global warming in the NSPS program when it amended the CAA in 1977 and 1990.

Sen. Patrick Leahy (D-VT) introduced legislation to amend the NSPS to cap CO₂ from power plants in the 105th, 106th, and 107th Congresses. Each time the bill attracted zero co-sponsors. It's absurd, says Lewis, to argue that Congress implicitly empowered EPA to cap CO₂ in 1970 given Leahy's efforts to provide that authority and Congress's flat rejection of those efforts. "The phrase 'laughed out of court' was invented for just such inanities." Lewis makes several other cogent and damning critiques of the AG's arguments.

He concludes by challenging EPA Administrator Whitman to show leadership in the face of these attacks. These notices are designed to force her to choose between the President's opposition to CO₂ regulation and the career bureaucrats who want to increase their power over the U.S. economy, says Lewis. "Whitman must decide where her loyalties lie – with the rule of law, economic growth, and affordable energy, or with the rule of bureaucrats, regulatory excess, and Kyoto-style energy rationing." The critique, *The Anti-Energy Litigation Of The State Attorneys General: From Junk Science To Junk Law*, is available at www.cei.org.

Economics

UK Leader Endorses Ambitious Carbon Reduction Goals

UK Prime Minister Tony Blair has thrown his support behind a government plan that would severely restrict greenhouse gas emissions, require large increases in the use of renewable energy, and block any further construction of nuclear power plants. The plan, which was set out in a white paper policy document released by the government on Feb. 24, was hailed by the prime minister as a "step change in the UK's energy strategy over the next 50 years."

The plan calls for a reduction in carbon dioxide emissions of 60 percent by the year 2050. The massive reductions would take place without



"Watson, Harlan L (OES)" <WatsonHL@state.gov>
03/19/2003 07:09:42 PM

Record Type: Record

To: Kenneth L. Peel/CEQ/EOP@EOP, Phil Cooney/CEQ/EOP@EOP

cc:

Subject: Joint Statement of Enhanced Bilateral Climate Change Cooperation Between the US and Mexico

<<Joint Statement of Enhanced Bilateral Climate Change Cooperation Between
the United States and Mexico.htm>>



- Joint Statement of Enhanced Bilateral Climate Change Cooperation Between the United States
and Mexico.htm

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004285

CEQ 004639



Joint Statement
Richard Boucher, Spokesman
Washington, DC
March 18, 2003

Joint Statement of Enhanced Bilateral Climate Change Cooperation Between the United States and Mexico

Following is the text of a joint press statement on climate change cooperation released today by the United States and Mexico:

"The governments of Mexico and the United States today announced their intention to expand and intensify their existing bilateral efforts to address climate change. The U.S. also presented its Carbon Sequestration Leadership Forum initiative.

"Both countries announced their intention to continue bilateral dialogue to develop joint activities to combat climate change in such areas as: emission inventories, economic and climatic models, energy, adaptation, agriculture/forests, earth observation systems and carbon sequestration technologies. Specific areas of cooperation will be further considered.

"Both delegations agreed to establish a working group to follow up bilateral cooperation on these issues.

"Talks took place in Mexico City on 17 March 2003, between Dr. Harlan Watson, Senior Climate Negotiator and Special Representative, of the U.S. Department of State, and Mrs. Patricia Olamendi, Under Secretary for Global Affairs of the Ministry of Foreign Affairs of Mexico, and other senior and technical officials of both governments. Participating in the talks on the U.S. side were the Departments of Agriculture, Commerce/NOAA, Energy, and State, and the Agency for International Development and Environmental Protection Agency. The Mexican participants were representatives from the Foreign Affairs Ministry, the Environment and Natural Resources Ministry, the Energy Ministry, as well as from Pemex, the National Commission for Energy Conservation, universities and research institutions."

[End]

Released on March 18, 2003

0374_f_q3rye003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Sandy MacCracken <smaccrac@usgcrp.gov> (Sandy MacCracken
<smaccrac@usgcrp.gov> [UNKNOWN])

CREATION DATE/TIME: 24-MAR-2003 12:34:49.00

SUBJECT:: CCSP Meeting Confirmation of Attendance

TO: david.conover@hq.doe.gov (david.conover@hq.doe.gov [UNKNOWN])
READ: UNKNOWN

TO: djwhite@nsf.gov (djwhite@nsf.gov [UNKNOWN])
READ: UNKNOWN

TO: Kathy.Holmes@science.doe.gov (Kathy.Holmes@science.doe.gov [UNKNOWN])
READ: UNKNOWN

TO: turekianvc@state.gov (turekianvc@state.gov [UNKNOWN])
READ: UNKNOWN

TO: sambrose@hq.nasa.gov (sambrose@hq.nasa.gov [UNKNOWN])
READ: UNKNOWN

TO: Robert.Marlay@hq.doe.gov (Robert.Marlay@hq.doe.gov [UNKNOWN])
READ: UNKNOWN

TO: mgarcia@usgs.gov (mgarcia@usgs.gov [UNKNOWN])
READ: UNKNOWN

TO: Jerry.Elwood@science.doe.gov (Jerry.Elwood@science.doe.gov [UNKNOWN])
READ: UNKNOWN

TO: kbarrett@usaid.gov (kbarrett@usaid.gov [UNKNOWN])
READ: UNKNOWN

TO: tspence@nsf.gov (tspence@nsf.gov [UNKNOWN])
READ: UNKNOWN

TO: James.R.Mahoney@noaa.gov (James.R.Mahoney@noaa.gov [UNKNOWN])
READ: UNKNOWN

TO: Margaret.R.Mccalla@noaa.gov (Margaret.R.Mccalla@noaa.gov [UNKNOWN])
READ: UNKNOWN

TO: gant@niehs.nih.gov (gant@niehs.nih.gov [UNKNOWN])
READ: UNKNOWN

TO: EmSimmons@usaid.gov (EmSimmons@usaid.gov [UNKNOWN])
READ: UNKNOWN

TO: andrewj@onr.navy.mil (andrewj@onr.navy.mil [UNKNOWN])
READ: UNKNOWN

TO: Erin Wuchte (CN=Erin Wuchte/OU=OMB/O=EOP@EOP [OMB])
READ: UNKNOWN

TO: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: ari.patrinis@science.doe.gov (ari.patrinis@science.doe.gov [UNKNOWN])
READ: UNKNOWN

0374_f_q3rye003_ceq.txt

TO:watsonhl@state.gov (watsonhi@state.gov [UNKNOWN])
READ:UNKNOWN

TO:neale@serc.si.edu (neale@serc.si.edu [UNKNOWN])
READ:UNKNOWN

TO:Patel-weynandTO@state.gov (Patel-weynandTO@state.gov [UNKNOWN])
READ:UNKNOWN

TO:Debbie.Payne@noaa.gov (Debbie.Payne@noaa.gov [UNKNOWN])
READ:UNKNOWN

TO:talleyt@state.gov (talleyt@state.gov [UNKNOWN])
READ:UNKNOWN

TO:david.goodrich@noaa.gov (david.goodrich@noaa.gov [UNKNOWN])
READ:UNKNOWN

TO:VGorsevski@usaid.gov (VGorsevski@usaid.gov [UNKNOWN])
READ:UNKNOWN

TO:scheraga.joel@epa.gov (scheraga.joel@epa.gov [UNKNOWN])
READ:UNKNOWN

TO:hratch.semerjian@nist.gov (hratch.semerjian@nist.gov [UNKNOWN])
READ:UNKNOWN

TO:Jack.Kaye@hq.nasa.gov (Jack.Kaye@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

TO:vicki.horton@noaa.gov (vicki.horton@noaa.gov [UNKNOWN])
READ:UNKNOWN

TO:mleinen@nsf.gov (mleinen@nsf.gov [UNKNOWN])
READ:UNKNOWN

TO:Margot.Anderson@hq.doe.gov (Margot.Anderson@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

TO:David Halpern (CN=David Halpern/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TO:mary.glackin@noaa.gov (mary.glackin@noaa.gov [UNKNOWN])
READ:UNKNOWN

TO:linda.lawson@ost.dot.gov (linda.lawson@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

TO:slimak.michael@epa.gov (slimak.michael@epa.gov [UNKNOWN])
READ:UNKNOWN

TO:mmoore@osophs.dhhs.gov (mmoore@osophs.dhhs.gov [CEA])
READ:UNKNOWN

TO:gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

TO:cgroat@usgs.gov (cgroat@usgs.gov [UNKNOWN])
READ:UNKNOWN

TO:whohenst@OCE.USDA.gov (whohenst@OCE.USDA.gov [UNKNOWN])
READ:UNKNOWN

0374_f_q3rye003_ceq.txt

TEXT:

Due to the number of invitees to the CCSP meeting on Friday, March 28th, we would like to have a count on how many of you will be attending, and how many will be calling in (details to follow if needed).

We are currently scheduled to meet in the CCSP conference room, but if the numbers warrant, we will attempt to move the meeting to a larger space.

If you would let me know as soon as possible, I would appreciate it.

Thank you,
Sandy

--

Sandy MacCracken
Administrator
Climate Change Science Program Office
U.S. Global Change Research Program
1717 Pennsylvania Avenue NW
Suite 250
Washington, DC 20006
Tel: 202-419-3483
Fax: 202-223-3065
Email: smaccrac@usgcrp.gov

0375_f_xlxye003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 24-MAR-2003 14:17:54.00

SUBJECT: Re: CCSP Meeting Confirmation of Attendance

TO: Sandy MacCracken <smaccrac@usgcrp.gov> (Sandy MacCracken <smaccrac@usgcrp.gov> [UNKNOWN])
READ: UNKNOWN

TEXT:

Sandy, I will plan to attend, thanks, Phil Cooney

Sandy MacCracken <smaccrac@usgcrp.gov>
03/24/2003 12:33:45 PM

Record Type: Record

To: See the distribution list at the bottom of this message

CC:

Subject: CCSP Meeting Confirmation of Attendance

Due to the number of invitees to the CCSP meeting on Friday, March 28th, we would like to have a count on how many of you will be attending, and how many will be calling in (details to follow if needed).

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If you would let me know as soon as possible, I would appreciate it.

Thank you,
Sandy

--

Sandy MacCracken
Administrator
Climate Change Science Program Office
U.S. Global Change Research Program
1717 Pennsylvania Avenue NW
Suite 250
Washington, DC 20006
Tel: 202-419-3483
Fax: 202-223-3065
Email: smaccrac@usgcrp.gov

Message Sent

To:

whohenst@OCE.USDA.gov
neale@serc.si.edu
cgroat@usgs.gov
watsonhl@state.gov
gasrar@hq.nasa.gov

Page 1

003266

CEQ 004647

0375_f_x1xye003_ceq.txt

ari.patrinis@science.doe.gov
mmoore@osophs.dhhs.gov
Phil Cooney/CEQ/EOP@EOP
slimak.michael@epa.gov
Erin Wuchte/OMB/EOP@EOP
linda.lawson@ost.dot.gov
andrewj@onr.navy.mil
mary.glackin@noaa.gov
EmSimmons@usaid.gov
David Halpern/OSTP/EOP@EOP
gant@niehs.nih.gov
Margot.Anderson@hq.doe.gov
Margaret.R.Mccalla@noaa.gov
mleinen@nsf.gov
James.R.Mahoney@noaa.gov
vicki.horton@noaa.gov
tspence@nsf.gov
Jack.Kaye@hq.nasa.gov
kbarrett@usaid.gov
hratch.semerjian@nist.gov
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mgarcia@usgs.gov
VGorsevski@usaid.gov
Robert.Marlay@hq.doe.gov
david.goodrich@noaa.gov
sambrose@hq.nasa.gov
talleyt@state.gov
turekianvc@state.gov
Debbie.Payne@noaa.gov
Kathy.Holmes@science.doe.gov
Patel-weynandTO@state.gov
djwhite@nsf.gov
sambrose@hq.nasa.gov
david.conover@hq.doe.gov

0378_f_wav0f003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 25-MAR-2003 17:34:39.00

SUBJECT: FY 2004 CCRI Program Descriptions and Milestones

TO: Kameran L. Onley (CN=Kameran L. Onley/OU=CEQ/O=EOP@EOP [CEQ])

READ: UNKNOWN

TEXT:

----- Forwarded by Phil Cooney/CEQ/EOP on 03/25/2003
05:34 PM -----

Stephanie Harrington <Stephanie.Harrington@noaa.gov>
03/13/2003 09:57:15 AM

Record Type: Record

To: See the distribution list at the bottom of this message

cc: See the distribution list at the bottom of this message

Subject: FY 2004 CCRI Program Descriptions and Milestones

Please see the attached PDF file to view the FY 2004 Climate Change
Research Initiative (CCRI) Program
Descriptions and Milestones. This document is now public.

Please let me know if you have any questions or have any difficulties
opening the file.

Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944

- FY 2004 CCRI.PDF

Message Sent

To:

whohenst@OCE.USDA.gov
neale@serc.si.edu
cgroat@usgs.gov
watsonhl@state.gov
gasrar@hq.nasa.gov
ari.patrin@science.doe.gov
mmoore@osophs.dhhs.gov
Phil Cooney/CEQ/EOP@EOP
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Erin Wuchte/OMB/EOP@EOP
linda.lawson@ost.dot.gov
andrewj@onr.navy.mil
mary.glackin@noaa.gov
EmSimmons@usaid.gov
David Halpern/OSTP/EOP@EOP
gant@niehs.nih.gov
Margot.Anderson@hq.doe.gov
Margaret.R.McCalla@noaa.gov
mleinen@nsf.gov

Page 1

003267

CEQ 004650

0378_f_wav0f003_ceq.txt

Message Copied

To:

tspence@nsf.gov
Jack.Kaye@hq.nasa.gov
kbarrett@usaid.gov
hratch.semerjian@nist.gov
Jerry.Elwood@science.doe.gov
scheraga.joel@epa.gov
mgarcia@usgs.gov
VGorsevski@usaid.gov
david.goodrich@noaa.gov
sambrose@hq.nasa.gov
talley@state.gov
turekianvc@state.gov
Debbie.Payne@noaa.gov
Kathy.Holmes@science.doe.gov
Patel-weynandTO@state.gov
djwhite@nsf.gov
rbirk@hq.nasa.gov
ipo@usgcrp.gov

===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

Unable to convert NSREOP0103:[ATTACH.D81]SREOP01300F0VAW.001 to ASCII,
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===== END ATTACHMENT 1 =====

0382_f_y392f003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:"Moss, Richard H" <Richard.Moss@pnl.gov> ("Moss, Richard H"
<Richard.Moss@pnl.gov> [UNKNOWN])

CREATION DATE/TIME:26-MAR-2003 17:06:35.00

SUBJECT:: Press Release on CCSP Plan Date Change

TO:Erin Wuchte (CN=Erin Wuchte/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

TO:slimak.michael@epa.gov (slimak.michael@epa.gov [UNKNOWN])
READ:UNKNOWN

TO:ari.patrinios@science.doe.gov (ari.patrinios@science.doe.gov [UNKNOWN])
READ:UNKNOWN

TO:mmoore@osophs.dhhs.gov (mmoore@osophs.dhhs.gov [CEA])
READ:UNKNOWN

TO:mleinen@nsf.gov (mleinen@nsf.gov [UNKNOWN])
READ:UNKNOWN

TO:whohenst@OCE.USDA.gov (whohenst@OCE.USDA.gov [UNKNOWN])
READ:UNKNOWN

TO:cgroat@usgs.gov (cgroat@usgs.gov [UNKNOWN])
READ:UNKNOWN

TO:gant@niehs.nih.gov (gant@niehs.nih.gov [UNKNOWN])
READ:UNKNOWN

TO:david.conover@hq.doe.gov (david.conover@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

TO:andrewj@onr.navy.mil (andrewj@onr.navy.mil [UNKNOWN])
READ:UNKNOWN

TO:watsonhl@state.gov (watsonhl@state.gov [UNKNOWN])
READ:UNKNOWN

TO:EmSimmons@usaid.gov (EmSimmons@usaid.gov [UNKNOWN])
READ:UNKNOWN

TO:neale@serc.si.edu (neale@serc.si.edu [UNKNOWN])
READ:UNKNOWN

TO:Margaret.R.Mccalla@noaa.gov (Margaret.R.Mccalla@noaa.gov [UNKNOWN])
READ:UNKNOWN

TO:linda.lawson@ost.dot.gov (linda.lawson@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

TO:David Halpern (CN=David Halpern/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TO:mary.glackin@noaa.gov (mary.glackin@noaa.gov [UNKNOWN])
READ:UNKNOWN

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

0382_f_y392f003_ceq.txt

TO:gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

TO:Margot.Anderson@hq.doe.gov (Margot.Anderson@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:ipo@usgcrp.gov (ipo@usgcrp.gov [UNKNOWN])
READ:UNKNOWN

CC:djwhite@nsf.gov (djwhite@nsf.gov [UNKNOWN])
READ:UNKNOWN

CC:Kathy.Holmes@science.doe.gov (Kathy.Holmes@science.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:turekaianvc@state.gov (turekaianvc@state.gov [UNKNOWN])
READ:UNKNOWN

CC:tspence@nsf.gov (tspence@nsf.gov [UNKNOWN])
READ:UNKNOWN

CC:scheraga.joel@epa.gov (scheraga.joel@epa.gov [UNKNOWN])
READ:UNKNOWN

CC:robert.marlay@hq.doe.gov (robert.marlay@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:VGorsevski@usaid.gov (VGorsevski@usaid.gov [UNKNOWN])
READ:UNKNOWN

CC:mgarcia@usgs.gov (mgarcia@usgs.gov [UNKNOWN])
READ:UNKNOWN

CC:kbarrett@usaid.gov (kbarrett@usaid.gov [UNKNOWN])
READ:UNKNOWN

CC:rbirk@hq.nasa.gov (rbirk@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:Debbie.Payne@noaa.gov (Debbie.Payne@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:jgross@mail.hq.nasa.gov (jgross@mail.hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:talleyt@state.gov (talleyt@state.gov [UNKNOWN])
READ:UNKNOWN

CC:hratch.semerjian@nist.gov (hratch.semerjian@nist.gov [UNKNOWN])
READ:UNKNOWN

CC:Patel-weynandTO@state.gov (Patel-weynandTO@state.gov [UNKNOWN])
READ:UNKNOWN

CC:Jack.Kaye@hq.nasa.gov (Jack.Kaye@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:david.goodrich@noaa.gov (david.goodrich@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:Jerry.Elwood@science.doe.gov (Jerry.Elwood@science.doe.gov [UNKNOWN])
READ:UNKNOWN

0383_f_cg92f003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:"Moss, Richard H" <Richard.Moss@pn1.gov> ("Moss, Richard H"
<Richard.Moss@pn1.gov> [UNKNOWN])

CREATION DATE/TIME:26-MAR-2003 17:12:16.00

SUBJECT:: Press Release on CCSP Plan Date Change

TO:Erin wuchte (CN=Erin wuchte/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

TO:slimak.michael@epa.gov (slimak.michael@epa.gov [UNKNOWN])
READ:UNKNOWN

TO:ari.patrinios@science.doe.gov (ari.patrinios@science.doe.gov [UNKNOWN])
READ:UNKNOWN

TO:mmoore@osophs.dhhs.gov (mmoore@osophs.dhhs.gov [CEA])
READ:UNKNOWN

TO:mleinen@nsf.gov (mleinen@nsf.gov [UNKNOWN])
READ:UNKNOWN

TO:whohenst@OCE.USDA.gov (whohenst@OCE.USDA.gov [UNKNOWN])
READ:UNKNOWN

TO:cgroat@usgs.gov (cgroat@usgs.gov [UNKNOWN])
READ:UNKNOWN

TO:gant@niehs.nih.gov (gant@niehs.nih.gov [UNKNOWN])
READ:UNKNOWN

TO:david.conover@hq.doe.gov (david.conover@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

TO:andrewj@onr.navy.mil (andrewj@onr.navy.mil [UNKNOWN])
READ:UNKNOWN

TO:watsonhl@state.gov (watsonhl@state.gov [UNKNOWN])
READ:UNKNOWN

TO:EmSimmons@usaid.gov (EmSimmons@usaid.gov [UNKNOWN])
READ:UNKNOWN

TO:neale@serc.si.edu (neale@serc.si.edu [UNKNOWN])
READ:UNKNOWN

TO:Margaret.R.Mccalla@noaa.gov (Margaret.R.Mccalla@noaa.gov [UNKNOWN])
READ:UNKNOWN

TO:linda.lawson@ost.dot.gov (linda.lawson@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

TO:David Halpern (CN=David Halpern/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TO:mary.glackin@noaa.gov (mary.glackin@noaa.gov [UNKNOWN])
READ:UNKNOWN

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

0383_f_cg92f003_ceq.txt

TO:gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

TO:Margot.Anderson@hq.doe.gov (Margot.Anderson@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:ipo@usgcrp.gov (ipo@usgcrp.gov [UNKNOWN])
READ:UNKNOWN

CC:djwhite@nsf.gov (djwhite@nsf.gov [UNKNOWN])
READ:UNKNOWN

CC:Kathy.Holmes@science.doe.gov (Kathy.Holmes@science.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:turekianvc@state.gov (turekianvc@state.gov [UNKNOWN])
READ:UNKNOWN

CC:tspence@nsf.gov (tspence@nsf.gov [UNKNOWN])
READ:UNKNOWN

CC:scheraga.joel@epa.gov (scheraga.joel@epa.gov [UNKNOWN])
READ:UNKNOWN

CC:robert.marlay@hq.doe.gov (robert.marlay@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:VGorsevski@usaid.gov (VGorsevski@usaid.gov [UNKNOWN])
READ:UNKNOWN

CC:mgarcia@usgs.gov (mgarcia@usgs.gov [UNKNOWN])
READ:UNKNOWN

CC:kbarrett@usaid.gov (kbarrett@usaid.gov [UNKNOWN])
READ:UNKNOWN

CC:rbirk@hq.nasa.gov (rbirk@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:Debbie.Payne@noaa.gov (Debbie.Payne@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:jgross@mail.hq.nasa.gov (jgross@mail.hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:talleyt@state.gov (talleyt@state.gov [UNKNOWN])
READ:UNKNOWN

CC:hratch.semerjian@nist.gov (hratch.semerjian@nist.gov [UNKNOWN])
READ:UNKNOWN

CC:Patel-weynandTO@state.gov (Patel-weynandTO@state.gov [UNKNOWN])
READ:UNKNOWN

CC:Jack.Kaye@hq.nasa.gov (Jack.Kaye@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:david.goodrich@noaa.gov (david.goodrich@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:Jerry.Elwood@science.doe.gov (Jerry.Elwood@science.doe.gov [UNKNOWN])
READ:UNKNOWN

0383_f_cg92f003_ceq.txt

CC:sambrose@hq.nasa.gov (sambrose@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

TEXT:

The press release announcing the change in the CCSP plan release date is attached. This final version reflects most of the comments that were submitted on the first draft. The press release is being sent first to you, and subsequently to the Hill and media outlets. It will also be posted on our web page.

Regards and many thanks,

Richard

Richard H. Moss

Climate Change Science Program

(Incorporating the US Global Change Research Program and the Climate Change Research Initiative)

1717 Pennsylvania Avenue NW, Suite 250

Washington, DC 20006

Email: rmoss@usgcrp.gov

Telephone: 1 (202) 419-3476

Fax: 1 (202) 223-3908

- att1.htm - Press Release on June 25 Plan Publication

3-27-03.pdf===== ATTACHMENT 1 =====

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<meta name=Generator content="Microsoft Word 10 (filtered)">

<style>

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panose-1:2 11 6 4 2 2 2 2 2 4;}

/* style Definitions */

p.MsoNormal, li.MsoNormal, div.MsoNormal

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Page 3

CEQ 004659

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text-decoration:underline;}
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font-family:"Times New Roman";}
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margin:1.0in 1.25in 1.0in 1.25in;}
div.Section1
{page:Section1;}
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</style>
</head>
<body lang=EN-US link=blue vlink=purple>
<div class=Section1>
<p class=MsoNormal><font size=2 face=Arial><span style='font-size:10.0pt;
font-family:Arial'>The press release announcing the change in the CCSP plan
release date is attached. This final version reflects most of the comments that
were submitted on the first draft. The press release is being sent first to
you, and subsequently to the Hill and media outlets. It will also be posted on
our web page. </span></font></p>
<p class=MsoNormal><font size=2 face=Arial><span style='font-size:10.0pt;
font-family:Arial'>&nbsp;</span></font></p>
<p class=MsoNormal><font size=2 face=Arial><span style='font-size:10.0pt;
font-family:Arial'>Regards and many thanks,</span></font></p>
<p class=MsoNormal><font size=2 face=Arial><span style='font-size:10.0pt;
font-family:Arial'>&nbsp;</span></font></p>
<p class=MsoNormal><font size=2 face=Arial><span style='font-size:10.0pt;
font-family:Arial'>Richard </span></font></p>
<p class=MsoNormal><font size=2 face=Arial><span style='font-size:10.0pt;
font-family:Arial'>&nbsp;</span></font></p>
<p class=MsoNormal><font size=2 face=Arial><span style='font-size:10.0pt;
font-family:Arial'>&nbsp;</span></font></p>
<p class=MsoNormal><font size=2 face=Arial><span style='font-size:10.0pt;
font-family:Arial'>&nbsp;</span></font></p>
<p class=MsoAutoSig><font size=2 face=Helvetica><span style='font-size:10.0pt;

```

font-family:Helvetica'>Richard H. Moss</p>

<p class=MsoAutoSig>Climate Change Science Program</p>

<p class=MsoAutoSig>(Incorporating the US Global Change Research Program and the Climate Change Research Initiative)</p>

<p class=MsoAutoSig>1717 Pennsylvania Avenue NW, Suite 250</p>

<p class=MsoAutoSig>Washington, DC 2006</p>

<p class=MsoAutoSig>Email: rsmoss@usgcrp.gov</p>

<p class=MsoAutoSig>Telephone: 1 (202) 419-3476</p>

<p class=MsoAutoSig>Fax: 1 (202) 223-3908</p>

<p class=MsoNormal> </p>

</div>

</body>

</html>

===== END ATTACHMENT 1 =====

===== ATTACHMENT 2 =====

ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

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0385_f_95b2f003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 26-MAR-2003 17:40:59.00

SUBJECT:: FYI: Press Release on CCSP Plan Date Change

TO: Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Kameran L. Onley (CN=Kameran L. Onley/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TEXT:

----- Forwarded by Phil Cooney/CEQ/EOP on 03/26/2003
05:40 PM -----

"Moss, Richard H" <Richard.Moss@pn1.gov>
03/26/2003 05:05:35 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: Press Release on CCSP Plan Date Change

The press release announcing the change in the CCSP plan release date is attached. This final version reflects most of the comments that were submitted on the first draft. The press release is being sent first to you, and subsequently to the Hill and media outlets. It will also be posted on our web page.

Regards and many thanks,

Richard

Richard H. Moss

Climate Change Science Program

(Incorporating the US Global Change Research Program and the Climate Change Research Initiative)

Page 1

003270

CEQ 004664

1717 Pennsylvania Avenue NW, Suite 250

Washington, DC 20006

Email: rross@usgcrp.gov

Telephone: 1 (202) 419-3476

Fax: 1 (202) 223-3908

- att1.htm
- Press Release on June 25 Plan Publication 3-27-03.pdf

Message Sent

To:

Margot.Anderson@hq.doe.gov
andrewj@onr.navy.mil
gasrar@hq.nasa.gov
david.conover@hq.doe.gov
Phil Cooney/CEQ/EOP@EOP
gant@niehs.nih.gov
mary.glackin@noaa.gov
cgroat@usgs.gov
David Halpern/OSTP/EOP@EOP
whohenst@OCE.USDA.gov
linda.lawson@ost.dot.gov
mleinen@nsf.gov
Margaret.R.Mccalla@noaa.gov
mmoore@osophs.dhhs.gov
neale@serc.si.edu
ari.patrinis@science.doe.gov
EmSimmons@usaid.gov
slimak.michael@epa.gov
Watsonhl@state.gov
Erin Wuchte/OMB/EOP@EOP

Message Copied

To:

sambrose@hq.nasa.gov
kbarrett@usaid.gov
Jerry.Elwood@science.doe.gov
mgarcia@usgs.gov
david.goodrich@noaa.gov
VGorsevski@usaid.gov
Jack.Kaye@hq.nasa.gov
robert.marlay@hq.doe.gov
Patel-weynandTO@state.gov
scheraga.joel@epa.gov
hratch.semerjian@nist.gov
tsponce@nsf.gov
talleyt@state.gov
turekianvc@state.gov
jgross@mail.hq.nasa.gov
Kathy.Holmes@science.doe.gov
Debbie.Payne@noaa.gov
djwhite@nsf.gov
rbirk@hq.nasa.gov
ipo@usgcrp.gov

===== ATTACHMENT 1 =====
 ATT CREATION TIME/DATE: 0 00:00:00.00

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/* Style Definitions */

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 margin-bottom:.0001pt;
 font-size:12.0pt;
 font-family:"Times New Roman";}

a:link, span.MsoHyperlink

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 text-decoration:underline;}

a:visited, span.MsoHyperlinkFollowed

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 text-decoration:underline;}

p.MsoAutoSig, li.MsoAutoSig, div.MsoAutoSig

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 font-family:"Times New Roman";}

span.EmailStyle17

{font-family:Arial;
 color:windowtext;}

@page Section1

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 margin:1.0in 1.25in 1.0in 1.25in;}

div.Section1

{page:Section1;}

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</style>

</head>

<body lang=EN-US link=blue vlink=purple>

<div class=Section1>

<p class=MSONormal><span style='font-size:10.0pt;
 font-family:Arial'>The press release announcing the change in the CCSP plan
 release date is attached. This final version reflects most of the comments that

were submitted on the first draft. The press release is being sent first to
 you, and subsequently to the Hill and media outlets. It will also be posted on

our web page. </p>

<p class=MSONormal><span style='font-size:10.0pt;
 font-family:Arial'> </p>

<p class=MSONormal><span style='font-size:10.0pt;

font-family:Arial'>Regards and many thanks,</p>

<p class=MsoNormal> </p>

<p class=MsoNormal>Richard </p>

<p class=MsoNormal> </p>

<p class=MsoNormal> </p>

<p class=MsoNormal> </p>

<p class=MsoAutoSig>Richard H. Moss</p>

<p class=MsoAutoSig>Climate Change Science Program</p>

<p class=MsoAutoSig>(Incorporating the US Global Change Research Program and the Climate Change Research Initiative)</p>

<p class=MsoAutoSig>1717 Pennsylvania Avenue NW, suite 250</p>

<p class=MsoAutoSig>Washington, DC 2006</p>

<p class=MsoAutoSig>Email: rross@usgcrp.gov</p>

<p class=MsoAutoSig>Telephone: 1 (202) 419-3476</p>

<p class=MsoAutoSig><span style='font-size:10.0pt;

0385_f_95b2f003_ceq.txt

font-family:Helvetica'>Fax: 1 (202) 223-3908</p>

<p class=MsoNormal> </p>

</div>

</body>

</html>

===== END ATTACHMENT 1 =====

===== ATTACHMENT 2 =====

ATT CREATION TIME/DATE: 0 00:00:00.00

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The following is a HEX DUMP:

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0390_f_bfk3f003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:"Moss, Richard H" <Richard.Moss@pn1.gov> ("Moss, Richard H"
<Richard.Moss@pn1.gov> [UNKNOWN])

CREATION DATE/TIME:27-MAR-2003 16:14:08.00

SUBJECT:: Supplemental Documents for 28March03 CCSP Meeting

TO:Erin Wuchte (CN=Erin wuchte/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

TO:slimak.michael@epa.gov (slimak.michael@epa.gov [UNKNOWN])
READ:UNKNOWN

TO:ari.patrinios@science.doe.gov (ari.patrinios@science.doe.gov [UNKNOWN])
READ:UNKNOWN

TO:mmoore@osophs.dhhs.gov (mmoore@osophs.dhhs.gov [CEA])
READ:UNKNOWN

TO:mleinen@nsf.gov (mleinen@nsf.gov [UNKNOWN])
READ:UNKNOWN

TO:whohent@OCE.USDA.gov (whohent@OCE.USDA.gov [UNKNOWN])
READ:UNKNOWN

TO:cgroat@usgs.gov (cgroat@usgs.gov [UNKNOWN])
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TO:gant@niehs.nih.gov (gant@niehs.nih.gov [UNKNOWN])
READ:UNKNOWN

TO:david.conover@hq.doe.gov (david.conover@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

TO:andrewj@onr.navy.mil (andrewj@onr.navy.mil [UNKNOWN])
READ:UNKNOWN

TO:watsonhl@state.gov (watsonhl@state.gov [UNKNOWN])
READ:UNKNOWN

TO:EmSimmons@usaid.gov (EmSimmons@usaid.gov [UNKNOWN])
READ:UNKNOWN

TO:neale@serc.si.edu (neale@serc.si.edu [UNKNOWN])
READ:UNKNOWN

TO:Margaret.R.Mccalla@noaa.gov (Margaret.R.Mccalla@noaa.gov [UNKNOWN])
READ:UNKNOWN

TO:linda.lawson@ost.dot.gov (linda.lawson@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

TO:David Halpern (CN=David Halpern/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TO:mary.glackin@noaa.gov (mary.glackin@noaa.gov [UNKNOWN])
READ:UNKNOWN

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

0390_f_bfk3f003_ceq.txt

TO:gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

TO:Margot.Anderson@hq.doe.gov (Margot.Anderson@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:ipo@usgcrp.gov (ipo@usgcrp.gov [UNKNOWN])
READ:UNKNOWN

CC:djwhite@nsf.gov (djwhite@nsf.gov [UNKNOWN])
READ:UNKNOWN

CC:Kathy.Holmes@science.doe.gov (Kathy.Holmes@science.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:turekianvc@state.gov (turekianvc@state.gov [UNKNOWN])
READ:UNKNOWN

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CC:scheraga.joel@epa.gov (scheraga.joel@epa.gov [UNKNOWN])
READ:UNKNOWN

CC:robert.marlay@hq.doe.gov (robert.marlay@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:VGorsevski@usaid.gov (VGorsevski@usaid.gov [UNKNOWN])
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CC:mgarcia@usgs.gov (mgarcia@usgs.gov [UNKNOWN])
READ:UNKNOWN

CC:kbarrett@usaid.gov (kbarrett@usaid.gov [UNKNOWN])
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CC:rbirk@hq.nasa.gov (rbirk@hq.nasa.gov [UNKNOWN])
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CC:Debbie.Payne@noaa.gov (Debbie.Payne@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:jgross@mail.hq.nasa.gov (jgross@mail.hq.nasa.gov [UNKNOWN])
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READ:UNKNOWN

CC:hratch.semerjian@nist.gov (hratch.semerjian@nist.gov [UNKNOWN])
READ:UNKNOWN

CC:Patel-weynandTO@state.gov (Patel-weynandTO@state.gov [UNKNOWN])
READ:UNKNOWN

CC:Jack.Kaye@hq.nasa.gov (Jack.Kaye@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:david.goodrich@noaa.gov (david.goodrich@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:Jerry.Elwood@science.doe.gov (Jerry.Elwood@science.doe.gov [UNKNOWN])
READ:UNKNOWN

0390_f_bfk3f003_ceq.txt

CC:sambrose@hq.nasa.gov (sambrose@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

TEXT:
Attached please find several additional documents for discussion at Friday's CCSP meeting.

Richard H. Moss

Climate Change Science Program

(Incorporating the US Global Change Research Program and the Climate Change Research Initiative)

1717 Pennsylvania Avenue NW, Suite 250

washington, DC 20006

Email: rross@usgcrp.gov

Telephone: 1 (202) 419-3476

Fax: 1 (202) 223-3908

- att1.htm - CCSP_28Mar_supplemental.pdf===== ATTACHMENT 1

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 {font-family:Helvetica;
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/* Style Definitions */
p.MsoNormal, li.MsoNormal, div.MsoNormal
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 margin-bottom:.0001pt;
 font-size:12.0pt;
 font-family:"Times New Roman";}
a:link, span.MsoHyperlink
 {color:blue;
 text-decoration:underline;}
a:visited, span.MsoHyperlinkFollowed
 {color:purple;
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p.MsoAutoSig, li.MsoAutoSig, div.MsoAutoSig
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  font-family:"Times New Roman";}
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span.EmailStyle19
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@page Section1
  {size:8.5in 11.0in;
  margin:1.0in 1.25in 1.0in 1.25in;}
div.Section1
  {page:Section1;}
-->
</style>
</head>
<body lang=EN-US link=blue vlink=purple>
<div class=Section1>
<p class=MsoNormal><font size=2 face=Arial><span style='font-size:10.0pt;
font-family:Arial'>Attached please find several additional documents for
discussion at Friday's CCSP meeting. </span></font></p>
<p class=MsoNormal><font size=2 face=Arial><span style='font-size:10.0pt;
font-family:Arial'>&nbsp;</span></font></p>
<p class=MsoAutoSig><font size=2 face=Helvetica><span style='font-size:10.0pt;
font-family:Helvetica'>Richard H. Moss</span></font></p>
<p class=MsoAutoSig><font size=2 face=Helvetica><span style='font-size:10.0pt;
font-family:Helvetica'>Climate Change Science Program</span></font></p>
<p class=MsoAutoSig><font size=2 face=Helvetica><span style='font-size:10.0pt;
font-family:Helvetica'>(Incorporating the </span></font><font size=2
face=Helvetica><span style='font-size:10.0pt;font-family:Helvetica'>US</span>
</font><font
size=2 face=Helvetica><span style='font-size:10.0pt;font-family:Helvetica'>
Global Change Research Program and the Climate Change Research Initiative)</spa
n></font></p>
<p class=MsoAutoSig><font size=2 face=Helvetica><span style='font-size:10.0pt;
font-family:Helvetica'>1717 Pennsylvania Avenue NW, Suite 250</span></font></
p>
<p class=MsoAutoSig><font size=2 face=Helvetica><span style='font-size:10.0pt;

```

0390_f_bfk3f003_ceq.txt

font-family:Helvetica'>Washington, DC 20006</p>

<p class=MsoAutoSig>Email: rmoos@usgcrp.gov</p>

<p class=MsoAutoSig>Telephone: 1 (202) 419-3476</p>

<p class=MsoAutoSig>Fax: 1 (202) 223-3908</p>

<p class=MsoNormal> </p>

</div>

</body>

</html>

===== END ATTACHMENT 1 =====

===== ATTACHMENT 2 =====

ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

Unable to convert NSREOP0102:[ATTACH.D77]SREOP01300F3KFB.002 to ASCII,
The following is a HEX DUMP:

===== END ATTACHMENT 2 =====

CEQ
421 PC



SBodman@doc.gov
03/27/2003 07:13:47 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: Interagency Working Group on Climate Change Science and Technology (IWGCCST) -- April 3

Attached is the agenda for the Interagency Working Group on Climate Change Science and Technology meeting being held Thursday, April 3, 10:00-12:00 PM in room 4830 at the Department of Commerce. You should use the Secretary's entrance on 15th Street (at the blue awning) for access to the building.

Please confirm your attendance with Stephanie Harrington at 202-482-1944 or Margarita Gregg at 202-419-3466.

I look forward to seeing you next week.

Sam
(See attached file: Agenda IWGCCST Mtng03Apr2003.doc)



- Agenda IWGCCST Mtng03Apr2003.doc

Message Sent To:

conrad.c.lautenbacher@noaa.gov
James_Andrews@onr.navy.mil
Kathie L. Olsen/OSTP/EOP@EOP
emil.frankel@ost.dot.gov
eslater@osophs.dhhs.gov
gasrar@hq.nasa.gov
James Connaughton/CEQ/EOP@EOP
jrm@usda.gov
John H. Marburger/OSTP/EOP@EOP
fisher.linda@epa.gov
Marcus Peacock/CMB/EOP@EOP
d.nelson@state.gov
rcowell@nsf.gov
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Interagency Working Group on Climate Change Science and Technology

**Thursday, April 3, 2003, 10:00 a.m. to Noon
Department of Commerce, Rm. 4830**

Agenda

| Time | Item | Invited
Discussion Lead |
|-------------|-------------------------------------|---|
| 10:00 | Call to Order | Dep. Sec. Bodman, DOC |
| 10:05 | 1605(b) Update | U/S Card, DOE |
| 10:25 | Legislative and Policy Update | Chairman Connaughton, CEQ |
| 10:40 | International Update | U/S Paula Dobriansky, State |
| 10:55 | Earth Observation Summit | Assoc. Director Asrar, NASA
Ass't. Admin. Withee, NOAA |
| 11:10 | CCSP Update | Ass't. Sec. Mahoney, DOC |
| 11:25 | CCTP Update | CCTP Dir. Conover, DOE |
| 11:40 | Other Topics and General Discussion | Dep. Sec. Bodman, DOC |
| 12:00 | Adjourn | |



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3/28/03

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must be made.
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Phil

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TEXT:

Attached is the agenda for the Interagency Working Group on Climate Change Science and Technology meeting being held Thursday, April 3, 10:00-12:00 PM in room 4830 at the Department of Commerce. You should use the Secretary's entrance on 15th Street (at the blue awning) for access to the building.

Please confirm your attendance with Stephanie Harrington at 202-482-1944 or Margarita Gregg at 202-419-3466.

I look forward to seeing you next week.

Sam

(See attached file: Agenda IWGCCST Mtng03Apr2003.doc)

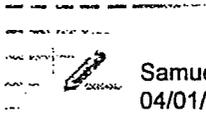
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To: Phil Cooney/CEQ/EOP@EOP, Kameran L. Bailey/CEQ/EOP@EOP

cc:

Subject: WTO/GCC

Inside EPA, Monday, April 01, 2002

Industry Cites WTO Ruling That May Force Changes In U.S. Greenhouse Gas Policies

Industry officials and conservative activists are pointing to a year-old World Trade Organization (WTO) ruling that could be used by the European Union to retaliate against the Bush administration's rejection of the Kyoto climate change treaty. They say the ruling could offer the EU an argument in attempting to force changes in the greenhouse gas policies of the U.S.

While there have been nagging concerns within industry, particularly among multinational corporations, that President Bush's decision not to participate in the Kyoto treaty could trigger a possible trade war, businesses have generally kept those concerns to themselves.

But a number of industry officials attending the Earth Technologies Forum conference on climate change and ozone protection in Washington, DC last week voiced concerns over the issue, questioning whether the U.S. stance on climate change combined with recent trade disputes will touch off a major trade battle between the Bush administration and the EU. "I can't imagine the life of me that there won't be a proposal within 12 months" on the issue, one industry source says.

For instance, during a panel discussion on Kyoto ratification by other nations, Thomas Jacob of Dupont Corporation, said the current lack of U.S. participation in the climate change protocol raises questions about how U.S. trading partners will react, noting that a WTO decision last year -- the so-called "shrimp/turtle decision" -- underscores the potential problems the U.S. faces.

In its June 15, 2001 decision, a WTO panel upheld U.S. restrictions against certain shrimp products from other nations because of concerns about how harvesting practices affected marine life, specifically sea turtles. Despite protests by countries such as Malaysia that the restrictions were an unfair trade practice, a WTO panel issued a lengthy decision noting that countries legitimately require, as a condition of access of certain products to its market, that exporting countries commit themselves to a regulatory programme deemed comparable to its own.

Jacobs and others say this reasoning has ramifications for the United States, if similar arguments are made to uphold restrictions or taxes on U.S. products to correct for alleged competitive advantages gained by American firms not subject to Kyoto targets.

Date: April 1, 2002

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COUNCIL ON ENVIRONMENTAL QUALITY

730 Jackson Place, NW
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PHONE: (202) 456 6224
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TO: Ed Krenik
 FROM: Phil Cooney
 DATE: 4/1/03 PAGES: 7
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1523 | Thank you, Mr. Chairman. I am sure I am over my time.

1524 | Mr. WALSH. Thank you, Alan.

1525 | I am going to call on Mr. Knollenberg next for questions,
1526 | but before I do that, I have to leave. I am going to hand
1527 | over the gavel to the Vice Chairman of the subcommittee, Mr.
1528 | Goode, for the first time. He sat on this committee for the
1529 | last two years as an independent representative. He is now,
1530 | I am glad to say, a Republican, so I will be glad to turn
1531 | over the gavel to Mr. Goode at this time. Thank you.

1532 | Mr. GOODE. Thank you very much.

1533 | Mr. KNOLLENBERG. Thanks, Mr. Chairman.

1534 | Dr. Marburger, I am going to get into, as quick as I can,
1535 | a situation that goes back well before your time, and so it
1536 | was not on your watch. But you are familiar obviously with
1537 | in 1990 the Congress passed a Global Change Research Act
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1589 basic question.

1590 Mr. MARBURGER. I am not sure I am familiar with all of
1591 the ins and outs of this issue, but I am familiar with some
1592 of it.

1593 Mr. KNOLLENBERG. You would be familiar with it if it
1594 were--

1595 Mr. MARBURGER. First of all, Congressman, the U.S.
1596 Government does circulate or actually makes accessible a lot
1597 of material that is not administrative policy. And so that I
1598 am not sure that I want to address the issue of let us say
1599 pulling things off of websites or so forth. My understanding
1600 is that there is a lot of information in the report that you
1601 are referring to that is useful to the science community, so
1602 that is probably why it is still available. But as far as I
1603 am concerned, and as far as this administration is concerned,
1604 the statement in this letter of September 6, 2001 is correct,
1605 this is not a statement of administration policy.

1606 The EPA report that you referred to I believe did not
1607 actually submit the--it was not simply equivalent to the
1608 assessment. I believe it did refer to the assessment in
1609 several places, and if I am not mistaken, did not refer to it
1610 as administrative policy. So perhaps the situation requires
1611 additional clarification, and I would be glad to address this
1612 in more legalistic terms and so forth, but that is my
1613 understanding of the current situation.

1614 Mr. KNOLLENBERG. Well, that is what I am looking for.
1615 It is possible that these attorneys general are acting on a
1616 bit of a slim foundation. On the other hand, they are
1617 acting, or they are assuming they are going to act within the

1618 | next 60 days. It tells me that they have taken a different
1619 | view of that, and what perhaps would have been a view that
1620 | you hold or would like to hold certainly. And we knew we had
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1630 | from CEI as well, a Mr. Horner. I remember that name too.

1631 | I just want you to be aware if it. I would like a
1632 | response to it. I would like a response to it so that we
1633 | know. I spoke to Mrs. Emerson this morning, who is aware of
1634 | this and concerned about it as well, so there is an interest
1635 | on our part in having some bona fide response.

1636 | Mr. MARBURGER. I think the appropriate thing for us to
1637 | do is to provide you with a letter or memorandum that gives
1638 | the status and the exact position of the administration on
1639 | this issue.

1640 | Mr. KNOLLENBERG. I would like that very much if you
1641 | would do that.

1642 | Mr. MARBURGER. We will be glad to do it.



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1640 Mr. KNOLLENBERG. I would like that very much if you
1641 would do that.

1642 Mr. MARBURGER. We will be glad to do it.

April 2, 2003

MEMORANDUM FOR: Interagency Working Group on Climate Change Science
and Technology

FROM: Sam Bodman, Chairman /s/ *Sam Bodman*

SUBJECT: Interagency Participation in Climate Change Technology Program

I believe it is very important that we encourage robust interagency participation in the Climate Change Technology Program (CCTP). Therefore, I would very much appreciate your appointment of appropriate representatives to the CCTP Steering Committee and the CCTP Working Groups. Your nominations for these agency oversight positions will be solicited in a separate memorandum sent to you by the CCTP Director, David Conover.

The CCTP operates through Working Groups chaired by representatives from DOE, EPA, NASA, and USDA, and involves Commerce and other Departments as well. Each of these Working Groups will benefit from participation by all federal agencies represented on the Committee on Climate Change Science and Technology Integration (CCCSTI), primarily by technically-oriented career staff. In addition, the overall CCTP will be successful as a Steering Committee for the Working Groups if it also has adequate participation by senior political appointees from CCCSTI member agencies. No individual acting below the level of Working Group Chair or serving on the Steering Committee would be expected to devote more than 10-15 percent of their time to CCTP activities.

Many thanks.

Interagency Working Group on Climate Change Science and Technology:

CEQ - J. Connaughton
DOD - J. Andrews
DOE - R. Card
DOI - S. Griles
DOT - E. Frankel
EPA - L. Fisher
HHS - E. Slater

NASA - G. Asrar
NEC - R. McNally
NSF - R. Colwell
OMB - M. Peacock
OSTP - K. Olsen
State - P. Dobriansky
USDA - J. Moseley

CEQ
664PC

**Climate Change Science Program Update
IWGCCST Meeting 03 April 2003**

Dr. James R. Mahoney
Assistant Secretary of Commerce for Oceans and Atmosphere,
and Director, Climate Change Science Program

- I. CCSP Interagency Funding**
- II. NRC Report**
- III. Press Coverage of the CCSP Strategic Plan**
- IV. Revised CCSP Strategic Plan and Press Release**
- V. FY 2005 CCSP Budget Development Steps**

001967

I. CCSP Interagency Funding

CEQ
664PC

**Climate Change Science Program Update
IWGCCST Meeting 03 April 2003**

Dr. James R. Mahoney
Assistant Secretary of Commerce for Oceans and Atmosphere,
and Director, Climate Change Science Program

- I. CCSP Interagency Funding**
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- IV. Revised CCSP Strategic Plan and Press Release**
- V. FY 2005 CCSP Budget Development Steps**

001967

CEQ 004708

I. CCSU Intra-agency Funding

Kenneth L. Peel 04/03/2003 08:37:42 AM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP
cc: debbie s. fiddelke/ceq/eop@eop, dana m. perino/ceq/eop@eop, kameran l. onley/ceq/eop@eop, dennis r. deziel/ceq/eop@eop
bcc:
Subject: Re: please take a look and provide feedback ASAP. thanks, Phil 



gctalkers403.doc

Phil, excellent work! Here are my very modest comments. Ken

Phil Cooney



Phil Cooney
04/02/2003 05:49:14 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc:
Subject: please take a look and provide feedback ASAP. thanks, Phil

Message Sent To:

Debbie S. Fiddelke/CEQ/EOP@EOP
Kenneth L. Peel/CEQ/EOP@EOP
Dana M. Perino/CEQ/EOP@EOP
Kameran L. Onley/CEQ/EOP@EOP
Dennis R. Deziel/CEQ/EOP@EOP

001814

CEQ 004711

0404_f_4u5bf003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:SBodman@doc.gov (SBodman@doc.gov [UNKNOWN])

CREATION DATE/TIME: 3-APR-2003 14:58:15.00

SUBJECT:: Interagency Working Group on Climate Change Science and Technology

TO:steven_griles@ios.doi.gov (steven_griles@ios.doi.gov [UNKNOWN])
READ:UNKNOWN

TO:d.nelson@state.gov (d.nelson@state.gov [UNKNOWN])
READ:UNKNOWN

TO:fisher.linda@epa.gov (fisher.linda@epa.gov [UNKNOWN])
READ:UNKNOWN

TO:jrm@usda.gov (jrm@usda.gov [UNKNOWN])
READ:UNKNOWN

TO:gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

TO:emil.frankel@ost.dot.gov (emil.frankel@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

TO:James_Andrews@onr.navy.mil (James_Andrews@onr.navy.mil [UNKNOWN])
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TO:Robert.Card@hq.doe.gov (Robert.Card@hq.doe.gov [UNKNOWN])
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TO:rco1well@nsf.gov (rco1well@nsf.gov [UNKNOWN])
READ:UNKNOWN

TO:Marcus Peacock (CN=Marcus Peacock/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

TO:John H. Marburger (CN=John H. Marburger/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TO:James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:eslater@osophs.dhhs.gov (eslater@osophs.dhhs.gov [UNKNOWN])
READ:UNKNOWN

TO:Kathie L. Olsen (CN=Kathie L. Olsen/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TO:conrad.c.lautenbacher@noaa.gov (conrad.c.lautenbacher@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:David.Conover@hq.doe.gov (David.Conover@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:barbara_diehl@ios.doi.gov (barbara_diehl@ios.doi.gov [UNKNOWN])
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CC:Kleibacker.lu-ann@epa.gov (Kleibacker.lu-ann@epa.gov [UNKNOWN])
READ:UNKNOWN

CC:Roberta L. Conde (CN=Roberta L. Conde/OU=CEQ/O=EOP@EOP [CEQ])
Page 1

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CC:Joy.Viars@hq.doe.gov (Joy.Viars@hq.doe.gov [UNKNOWN])
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READ:UNKNOWN

CC:Scott.Rayder@noaa.gov (Scott.Rayder@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:richard.spinrad@navy.mil (richard.spinrad@navy.mil [UNKNOWN])
READ:UNKNOWN

CC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC:mcleave@hq.nasa.gov (mcleave@hq.nasa.gov [UNKNOWN])
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CC:watsonhl@state.gov (watsonhl@state.gov [UNKNOWN])
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CC:Pat.A.Simms@noaa.gov (Pat.A.Simms@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:Stephanie.Harrington@noaa.gov (Stephanie.Harrington@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:yvonne.brown@ost.dot.gov (yvonne.brown@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

CC:emsimmons@usaid.gov (emsimmons@usaid.gov [UNKNOWN])
READ:UNKNOWN

CC:Robert C. McNally (CN=Robert C. McNally/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

CC:reifsnyderDA@state.gov (reifsnyderDA@state.gov [UNKNOWN])

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READ:UNKNOWN

CC:Kevin.Kolevar@hq.doe.gov (Kevin.Kolevar@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:Beale.john@epa.gov (Beale.john@epa.gov [UNKNOWN])
READ:UNKNOWN

CC:James.R.Mahoney@noaa.gov (James.R.Mahoney@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:gpaul@hq.nasa.gov (gpaul@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:ann_klee@ios.doi.gov (ann_klee@ios.doi.gov [UNKNOWN])
READ:UNKNOWN

TEXT:

Attached is the memo that was mentioned during this morning's meeting.

(See attached file: CCTP.wpd)

- CCTP.wpd===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

Unable to convert NSREOP0102:[ATTACH.D28]SREOP01300FB5U4.001 to ASCII,
The following is a HEX DUMP:

===== END ATTACHMENT 1 =====

CEQ
459 PC

International Update

Paula Dobriansky
Under Secretary of State for Global Affairs

U.S. Department of State
Interagency Working Group on
Climate Change Science and Technology

April 3, 2003

000955

CEQ 004717

Current Climate Change Bilaterals: Next Steps

| Country | Next Steps |
|-----------------|---|
| Australia | Minister Kemp to meet with senior administration officials May 1-2 in Washington.
U.S.-Australia Business Meeting: September/October |
| Canada | Interagency team to Ottawa to finalize action plan: April (tentative) |
| Central America | CONCAUSA tranche 1 technical workshops: Guatemala (April); El Salvador (May).

Agencies working on additional programming for second tranche. |
| China | 4 th meeting of Joint Working Group in Washington: June 26-27 |
| EU | 2 nd US-EU Joint Meeting in Europe: Fall |
| India | Interagency team to New Delhi to adopt action plan: Mid-May |
| Italy | 2 nd meeting of Joint Working Group in Washington: June 16 |
| Japan | 3 rd Meeting of U.S.-Japan High Level Consultations on Climate Change in Washington: June/July |
| Mexico | Interagency technical team visit to Mexico to develop action plan: May |
| New Zealand | Interagency team to Auckland to develop action plan: Mid-May |
| Russia | Interagency team to Moscow for 1 st Joint Working Group Meeting: April 21-21, 2003 |
| South Korea | Interagency team to Seoul to develop action plan: April 24-25. |

February 7, 2003 State Department Press Release on U.S.-EU Joint Meeting on Climate Change Science and Technology Research



Press Statement
Richard Boucher, Spokesman
Washington, DC
February 7, 2003

United States and European Union Joint Meeting on Climate Change Science and Technology Research

Following is the text of a joint statement issued by the United States and the European Union upon the conclusion of the U.S. - EU Joint Meeting on Climate Change Science and Technology Research.

Begin Text:

"The United States and European Union convened the first bilateral "U.S.-EU Joint Meeting on Climate Change Science and Technology Research" in Washington on February 5-6, 2003, following an invitation from Under Secretary of State for Global Affairs Paula Dobriansky to European Commission Research Commissioner Philippe Busquin. The meeting was conducted under the April 23, 2002 agreement of representatives to the U.S.-EU High Level Dialogue on Climate Change to enhance cooperation on climate-related science and research.

The respective delegations were led by Dr. Harlan Watson, Senior Climate Negotiator and Special Representative of the Department of State for the U.S. side, and by Dr. Anver Ghazi, Head, Global Change Unit of the European Commission Research Directorate-General for the European side.

The U.S. delegation included representatives from the White House Office of Science and Technology Policy, U.S. Climate Change Science Program Office, U.S. Department of Commerce National Oceanic and Atmospheric Administration, U.S. Department of Energy, U.S. Department of State, National Aeronautics and Space Administration, National Science Foundation, and U.S. Agency for International Development. The European Union delegation included representatives from the European Commission Research Directorate-General, selected research experts from European Union Member States, and the Delegation of the European Commission to the United States.

The two sides identified cooperative research activities in six areas: (1) carbon cycle research; (2) aerosol-climate interactions; (3) feedbacks, water vapor and thermohaline circulation; (4) integrated observation systems and data; (5) carbon capture and storage; and (6) hydrogen

technology and infrastructure. Specific topics of potential cooperation in each area are identified in an annex to this statement available at: www.state.gov/g/oes/climate/.

The two sides agreed to designate points of contact to coordinate the development of specific research activities and modalities of cooperation and to monitor the progress of these activities, building on existing cooperative arrangements wherever possible.

The two sides further agreed to review the progress of their cooperation at the next Joint Meeting, which could take place in Italy later this year. Additional topics to be considered then are abrupt climate change including critical thresholds, integrated assessment of mitigation and adaptation options, linkages between climate change management and energy systems transformations, and capacity building for strengthening the involvement of developing countries and young scientists in climate change research and monitoring.”

End Text.

ANNEX—United States and European Union Joint Meeting on Climate Change Science and Technology Research: Specific Topics of Potential Cooperation

The United States and European Union identified cooperative research activities in the six areas at the first bilateral “U.S.-EU Joint Meeting on Climate Change Science and Technology Research” held in Washington on February 5-6, 2003: (1) carbon cycle research; (2) aerosol-climate interactions; (3) feedbacks, water vapor and thermohaline circulation; (4) integrated observation systems and data; (5) carbon capture and storage; and (6) hydrogen technology and infrastructure. Other non-greenhouse gas emitting energy sources (e.g., nuclear energy, renewable energies), although not discussed in detail, were mentioned as worthy for cooperation in future discussions.

Specific topics of potential cooperation in each area include the following:

Carbon Cycle Research

1. Define and implement an integrated and optimized carbon observing system over the atmosphere, land, and oceans, with special emphasis on the carbon budget of North America, Europe, and the North Atlantic region;
2. Coordinate efforts in modeling (future projections, assimilation methods, and analysis of past changes) integration, interpretation, and future data acquisition strategies;
3. Enhance georeferenced carbon cycle data availability and quality; and
4. Develop common assessment methods and state-of-the-art reports.

Aerosol-Climate Interactions

1. Perform studies of aerosols, their influence on clouds, climate, and links to the water cycle in sensitive regions (hot spots) that are strongly affected by anthropogenic emissions (South and East Asia, and the Mediterranean);
2. Improve emission data sets of reactive gases and aerosols from anthropogenic and biomass burning sources;

3. Perform studies on intercontinental transport and chemical transformation of anthropogenic emissions that affect climate and air quality;
4. Advance integrated global/regional earth system modeling to study feedback mechanisms and develop mitigation and adaptation strategies; and
5. Further satellite observations of reactive gases and aerosols and down-scaling through in situ and remote sensing measurements in anchor stations.

Feedbacks and Climate Sensitivity

1. Improve representations of cloud feedbacks in coupled climate models through participation in the Cloud Feedbacks Model Intercomparison Project (CFMIP);
2. Begin to quantify and reduce uncertainty in model predictions through joint work on ensemble approaches to integrated climate change scenarios; and
3. Maintain and enhance participation in joint research on thermohaline circulation.

Integrated Observation Systems and Data

1. Cooperate, within existing international frameworks, to plan and develop the integrated observation systems required to provide the data needed for climate change research;
2. Continue with efforts to combine satellite and in situ global observations that are essential to detect climate change and improve evolving climate models, especially to encourage expanded involvement of developing countries to fill gaps in existing databases;
3. Encourage and further improve the sharing and archiving of climate data and the design of common standards and formats; and
4. Encourage the widest possible participation in the Earth Observation Summit in July 2003 and prepare for appropriate follow-up.

Carbon Capture and Storage

1. Identify potential areas of collaboration on carbon capture and storage;
2. Foster collaborative research and development projects;
3. Identify opportunities to discuss the perspectives of governments and other key stakeholders; and
4. Discuss planning, including research and development, for large integrated sequestration and energy plant projects.

Hydrogen Technology and Infrastructure

1. Development of international codes and standards including testing and certification;
2. Pre-competitive research and development on critical enabling technologies including: polymer electrolyte membrane (PEM) fuel cells, non-precious metal catalysts, high temperature membranes, solid oxide fuel cells, hydrogen storage concepts (e.g., carbon nanostructures and complex metal hydrides), refueling technologies and procedures, and hydrogen production;
3. Data exchange on hydrogen energy technology and fuel cells; and
4. Benchmarking of development and deployment strategies for hydrogen energy technologies and fuel cells.

[End]

March 18, 2003 State Department Press Release on U.S.-Mexico Joint Statement



Joint Statement
Richard Boucher, Spokesman
Washington, DC
March 18, 2003

Joint Statement of Enhanced Bilateral Climate Change Cooperation Between the United States and Mexico

Following is the text of a joint press statement on climate change cooperation released today by the United States and Mexico:

“The governments of Mexico and the United States today announced their intention to expand and intensify their existing bilateral efforts to address climate change. The U.S. also presented its Carbon Sequestration Leadership Forum initiative.

“Both countries announced their intention to continue bilateral dialogue to develop joint activities to combat climate change in such areas as: emission inventories, economic and climatic models, energy, adaptation, agriculture/forests, earth observation systems and carbon sequestration technologies. Specific areas of cooperation will be further considered.

“Both delegations agreed to establish a working group to follow up bilateral cooperation on these issues.

“Talks took place in Mexico City on 17 March 2003, between Dr. Harlan Watson, Senior Climate Negotiator and Special Representative, of the U.S. Department of State, and Mrs. Patricia Olamendi, Under Secretary for Global Affairs of the Ministry of Foreign Affairs of Mexico, and other senior and technical officials of both governments. Participating in the talks on the U.S. side were the Departments of Agriculture, Commerce/NOAA, Energy, and State, and the Agency for International Development and Environmental Protection Agency. The Mexican participants were representatives from the Foreign Affairs Ministry, the Environment and Natural Resources Ministry, the Energy Ministry, as well as from Pemex, the National Commission for Energy Conservation, universities and research institutions.”

[End]

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US CODE COLLECTION

[search](#)[TITLE 15 > CHAPTER 56A > Sec. 2936.](#)[Prev](#) | [Next](#)**Sec. 2936. - Scientific assessment**

On a periodic basis (not less frequently than every 4 years), the Council, through the Committee, shall prepare and submit to the President and the Congress an assessment which -

- (1) integrates, evaluates, and interprets the findings of the Program and discusses the scientific uncertainties associated with such findings;
- (2) analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; and
- (3) analyzes current trends in global change, both human-induced ^[1] and natural, and projects major trends for the subsequent 25 to 100 years. "human-induced"

[1] So in original. Probably should be

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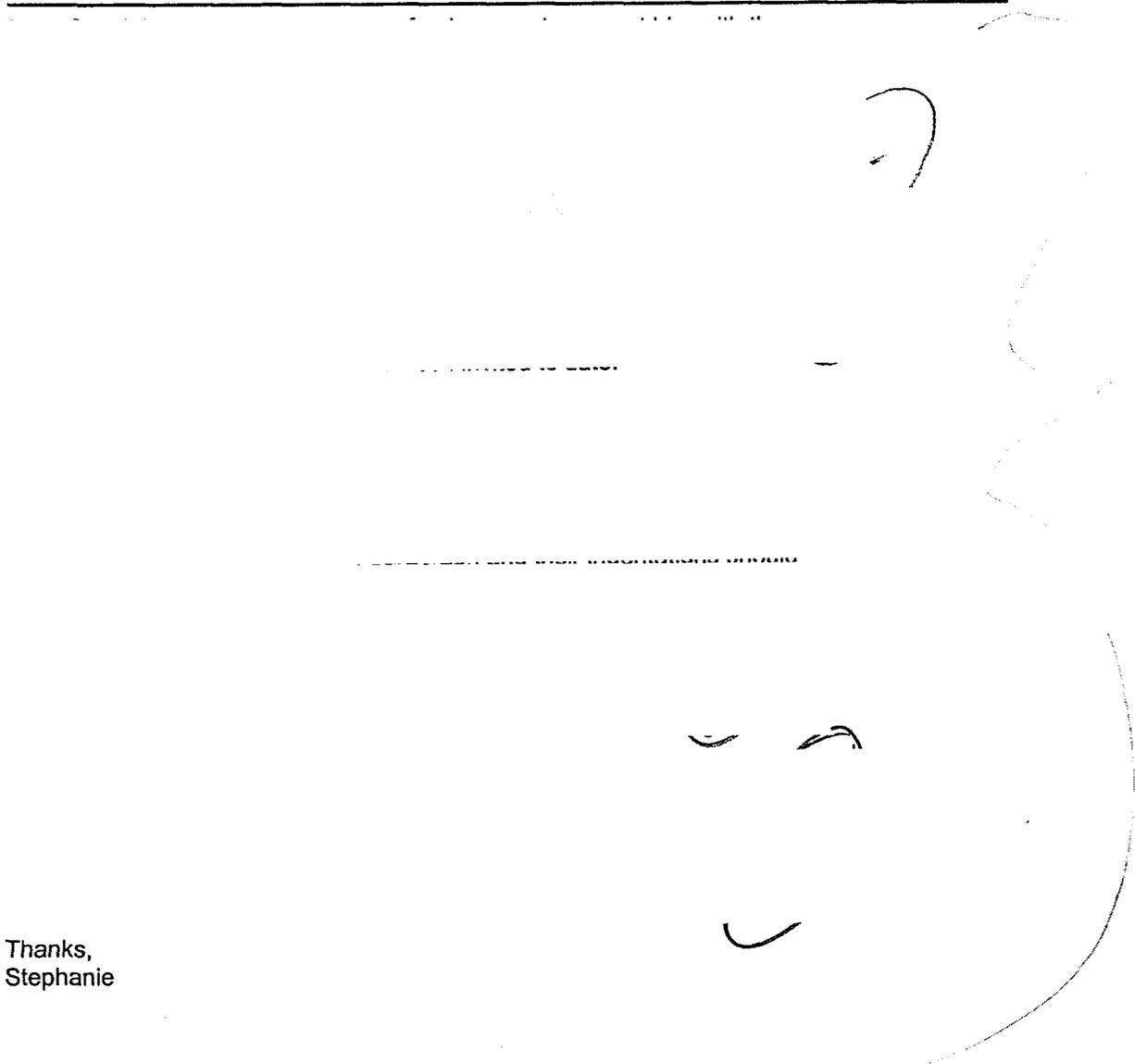
o/w no utility for intended audience.



Stephanie.Harrington@noaa.gov
04/04/2003 07:14:05 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP
cc: james.r.mahoney@noaa.gov
Subject: edits to the document sent out for review



Thanks,
Stephanie

001825

CEQ 004725



"Stephanie.Harrington" <Stephanie.Harrington@noaa.gov>
04/07/2003 11:24:02 AM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP
cc: James R Mahoney <James.R.Mahoney@noaa.gov>
Subject: Re: edits to the document sent out for review

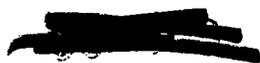
(b) (5)

Stephanie

Phil_Cooney@ceq.eop.gov wrote:

- > Jim and Stephanie, here's the document at this stage, reflecting comments
- > received in WH staffing and otherwise. Need any comments you may have by 10 AM
- > as this will go final this morning. thanks, Phil
- >
- > (See attached file: gctalkers403.doc)
- >
- >
- > (Embedded
- > image moved James R Mahoney <James.R.Mahoney@noaa.gov>
- > to file: 04/06/2003 07:19:11 PM
- > pic12508.pcx)
- >
- >
- > Record Type: Record
- >
- > To: Phil Cooney/CEQ/EOP@EOP
- >
- > cc: Stephanie.Harrington@noaa.gov, james.r.mahoney@noaa.gov
- > Subject: Re: edits to the document sent out for review
- >
- > Phil and Stephanie,
- >
- > Upon weekend reflection, I have some other comments (in addition to
- > those Stephanie sent on my behalf.) I'll transmit them Monday morning.
- >

001828



CEQ 004727



- gctalkers403.doc

> Jim
>
> ----- Original Message -----
> From: <Phil_Cooney@ceq.eop.gov>
> Date: Sunday, April 6, 2003 7:41 am
> Subject: Re: edits to the document sent out for review
>

>> Thank you, Stephanie, for your helpful comments. Phil
>>
>>
>>
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>> to file: 04/04/2003 07:14:05 PM
>> pic08933.pcx)
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>> Record Type: Record
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>> To: Phil Cooney/CEQ/EOP@EOP
>>

>> cc: james.r.mahoney@noaa.gov
>> Subject: edits to the document sent out for review
>>
>>
>>

>> Phil - Dr. Mahoney gave me a copy of a document you sent him with the
>> title "The Bush Administration's Actions on Global Climate
>> Change." We
>> have reviewed the document and have only the following comments:
>>

>>
>>
>>
>>
>>
>>
>>

cc: e

Please fax to
Mike Catanzaro,
Senate Energy
Committee
FAX: 202 228 0694
Tx Phil

CEQ
292 pc

EXECUTIVE OFFICE OF

COUNCIL
ON ENVIRONMENTAL
QUALITY

730 Jackson Place, NW
Washington, DC 20503



PHONE: (202) 456-6224
FAX: (202) 456-2710

TO: MIKE CATANZARO, SENATE ENERGY
COMMITTEE
FROM: PHIL COONEY
DATE: 04/07/03 PAGES: 2
(INCLUDING COVER SHEET)

COMMENTS: _____

The document(s) accompanying this FAX transmission may contain information, which is confidential and/or sensitive. The information is intended only for use by the individual or entity named on this transmission sheet. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of any action in reliance on the contents of this faxed information is strictly prohibited, and that the documents should be returned to this office immediately. In this regard, if you have received this FAX in error, please notify us by telephone immediately so that we can arrange for the return of the original document(s) to us.

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 9-APR-2003 09:59:50.00

SUBJECT:: Connaughton letter on Administration's action on climate

TO:libby_jarvis@frist.senate.gov (libby_jarvis@frist.senate.gov [UNKNOWN])

READ:UNKNOWN

TEXT:

Libby - Per my voice mail, attached and pasted below is the text of the letter Connaughton is sending up this a.m. to Frist, Domenici, Inhofe and Lugar. It accompanies the fact sheet on actions taken by the administration, which is also attached. I faxed this to you as well and will deliver a hard copy to the Leader's office this morning. Give me a call if you have any questions, thanks. - Deb

April 9, 2003

The Honorable Bill Frist
Honorable James Inhofe
Majority Leader
Committee on Environment
United States Senate
Works
Washington, DC 20510
Senate

The
Chairman,
and Public
United States

Washington, DC 20510

The Honorable Pete Domenici
Richard Lugar
Chairman, Committee on Energy
on Foreign
and Natural Resources
Relations
United States Senate
Senate
Washington, DC 20510
DC 20510

The Honorable
Chairman, Committee
United States
Washington,

Dear Mr. Leader and Chairmen:

As the Senate prepares for consideration of legislation to implement a national energy policy, I would like to provide you with an account of the actions taken by the Administration to implement President Bush's climate change strategy.

The importance of the climate change issue was recognized in the President's May 2001 National Energy Policy, which recommended that federal agencies develop innovative approaches to address the issue of global climate change. To fulfill this objective, the President convened a cabinet-level process to advance our research on global climate science and energy technologies, and to develop mitigation initiatives. The President directed his cabinet to pursue a more comprehensive range of domestic and international actions to address the issue of climate change that taps the power of markets, realizes the promise of technology and

003402

ensures the widest-possible global participation, with sustained economic growth.

In February 2002, the President committed the United States to an ambitious national goal to reduce the greenhouse gas intensity of the American economy by 18 percent over the next 10 years. Meeting this commitment will prevent more than 500 million metric tons of carbon-equivalent emissions through 2012. Included in the President's announcement were directives to his cabinet to implement a broad range of domestic and international actions. These actions are underway and are outlined in the attached fact sheet. Even as we focus on implementation, the cabinet-level policy process remains in place to oversee and direct this comprehensive program, and to adjust to new information and opportunities going forward. Our actions to date include:

- ú Large budget increases for global climate change, (\$4.5 billion, a 17 percent increase).
- ú Tax incentives through 2008 for renewable energy, and hybrid and fuel cell vehicles (\$4.4 billion).
- ú New investments in private sequestration efforts under the multi-billion dollar 2002 Farm Bill conservation programs.
- ú A cabinet-level Committee on Climate Change Science and Technology Integration.
- ú New investments in federal energy and carbon sequestration technology programs, including: hydrogen energy and fuel cell vehicles; a \$1 billion demonstration project to build a commercial scale, zero-emissions coal fired power plant; and a long term, international partnership on fusion energy.
- ú Sustained funding for climate science programs (\$1.7 billion in FY 2004).
- ú Fuel economy increases for SUVs and light trucks, saving 3.6 billion gallons of gasoline.
- ú Partnering with American business and industry on commitments to reduce greenhouse gas emissions.
- ú Enhancing the voluntary registry for reporting reductions of greenhouse gas emissions.
- ú Engaging in extensive international efforts, through both bilateral agreements and multilateral efforts.
- ú Providing more funding to the Global Environment Facility than any other nation (\$500 million committed in next four years as part of \$2.2 billion replenishment).
- ú Funding deployment of advanced technologies in developing nations through the U.S. Agency for International Development (\$155 million requested in FY 2004).
- ú International tropical forest conservation efforts (\$50 million).

The Senate may be asked to consider measures to address climate change, either in the energy bill or other legislative efforts. As this discussion unfolds, I would ask you and your colleagues to keep in mind the comprehensive actions now being undertaken by the Administration in this area and to help inform your Senate colleagues of our broad-based efforts.

If you or your colleagues have any questions on the Administration's efforts in the area of climate change, do not hesitate to contact me.

Sincerely,

James L. Connaughton
Page 2

0431_f_p5ggf003_ceq

cc: Members of the Committee on Energy and Natural Resources
Members of the Committee on Environment and Public Works
Members of the Committee on Foreign Relations

===== ATTACHMENT 1 =====

===== END ATTACHMENT 2 =====

THE BUSH ADMINISTRATION'S ACTIONS ON GLOBAL CLIMATE CHANGE

"I've asked my advisors to consider approaches to reduce greenhouse gas emissions, including those that tap the power of markets, help realize the promise of technology and ensure the widest-possible global participation.... Our actions should be measured as we learn more from science and build on it. Our approach must be flexible to adjust to new information and take advantage of new technology. We must always act to ensure continued economic growth and prosperity for our citizens and for citizens throughout the world." -- President Bush (6/11/01)

The Bush Administration has delivered on the President's commitment with a comprehensive, innovative program of domestic and international initiatives:

Ambitious National Goal to Reduce Emissions Growth: In February 2002, President Bush committed the United States to a comprehensive strategy to reduce the greenhouse gas intensity of the American economy by 18 percent over the next 10 years. Meeting this commitment will prevent more than 500 million metric tons of carbon-equivalent emissions through 2012 – the equivalent of taking 70 million cars off the road.

Large Budget Increases for Global Climate Change: President Bush's FY '03 budget sought a 17 percent increase in funding for climate change-related programs, to bring total U.S. Government spending this year to \$4.5 billion, a commitment unmatched in the world. A similar request has been made in the Administration's FY '04 budget. In addition, substantial funding for conservation programs under the 2002 Farm Bill will significantly increase the amount of carbon sequestration from agriculture and forestry.

Tax Incentives for Renewable Energy and Hybrid and Fuel Cell Vehicles: The President's FY '04 budget proposes tax incentives totaling \$4.4 billion through FY '08 to spur the use of clean, renewable energy and energy efficient technologies. Consistent with the President's National Energy Policy, the tax incentives include credits for the purchase of hybrid and fuel cell vehicles, residential solar heating systems, energy produced from landfill gas, electricity produced from alternative energy sources such as wind and biomass, and combined heat and power systems.

Cabinet Committee on Climate Change Science and Technology Integration: President Bush has created an interagency, cabinet-level committee, co-chaired by the Secretaries of Commerce and Energy, to coordinate and prioritize federal research on global climate science and advanced energy technologies. This Committee develops policy recommendations for the President and oversees the sub-cabinet interagency programs on climate science and energy technologies.

Federal Energy and Carbon Sequestration Programs: Includes \$1.6 billion FY '03 budget request to fund federal research and technology demonstration programs. Major new initiatives for FY '04 and beyond include:

Hydrogen Energy. President Bush launched his Hydrogen Fuel Initiative in this year's State of the Union address. The goal is to work closely with the private sector to accelerate our transition to a hydrogen economy, both on the technology of hydrogen fuel cells and a fueling infrastructure. The President's Hydrogen Fuel Initiative and the FreedomCAR Partnership launched last year will provide \$1.7 billion over the next 5 years

to develop hydrogen powered fuel cells, a hydrogen infrastructure, and advanced automobile technologies, allowing for commercialization by 2020. The United States will pursue international cooperation to affect a more rapid, coordinated advance for this technology that could lead to the elimination of air pollutants and a significant reduction of greenhouse gas emissions in the transportation sector worldwide.

“FutureGen” -- Coal-Fired, Zero-Emissions Electricity Generation. In February 2003, President Bush announced that the United States would sponsor, with international and private sector partners, a \$1 billion, 10-year demonstration project to create the world's first coal-based, zero-emissions electricity and hydrogen power plant. This project is designed to dramatically reduce air pollution and capture and store greenhouse gas emissions. This initiative is part of an international Carbon Sequestration Leadership Forum, chaired by the Secretary of Energy, to work cooperatively with our global partners, including developing countries, on research, development and deployment of carbon sequestration technologies in the next decade.

Fusion Energy. In January 2003, President Bush committed the United States to participate in the largest and most technologically sophisticated research project in the world to harness the promise of fusion energy, the same form of energy that powers the sun. If successful, this \$5 billion, internationally-supported research project will advance progress toward producing clean, renewable, commercially-available fusion energy by the middle of the century. Participating countries include the United Kingdom, Russia, Japan, China, and Canada.

Federal Climate Science Program: Includes \$1.7 billion in FY '04 budget request to fund federal research program, with \$185 million requested for the Climate Change Research Initiative in FY '04. Interagency U. S. Climate Change Science Program proposed a 10-Year Strategic Plan in November 2002, accompanied by 1300-person workshop, with representatives from over 35 countries; final plan to be released in June 2003. U. S. Government to host Earth Observation Summit in July 2003, with representatives of nearly 30 countries to be invited.

Fuel Economy Increase for Light Trucks: On April 1, 2003, the Bush Administration finalized regulations requiring an increase in the fuel economy of light trucks for Model Years 2005 - 2007, the first such increase in many years. The increase from 20.7 miles per gallon to 22.2 miles per gallon by 2007 more than doubles the increase in the standard that occurred between Model Years 1986 and 1996, when it increased from 20.0 miles per gallon to 20.7 miles per gallon. The new standards are projected to result in savings of approximately 3.6 billion gallons of gasoline over the lifetime of these trucks, with the corresponding avoidance of 31 million metric tons of carbon dioxide emissions.

Voluntary Greenhouse Gas Reduction Initiatives with Business and Industry: The federal government administers nearly 60 different voluntary programs on energy efficiency, agricultural practices and greenhouse gas reductions. Major initiatives announced by the Bush Administration include:

“Climate VISION” Partnership. In February 2003, President Bush announced that twelve major industrial sectors and the membership of the Business Roundtable, have committed to work with four of his cabinet agencies (DOE, EPA, DOT and USDA) to reduce their greenhouse gas emissions in the next decade. Participating industries included America's electric utilities;

petroleum refiners and natural gas producers; automobile, iron and steel, chemical and magnesium manufacturers; forest and paper producers; railroads; and the cement, mining, aluminum and semiconductor industries.

Climate Leaders. Announced by EPA Administrator Whitman in February 2002, Climate Leaders is an EPA partnership encouraging individual companies to develop long-term, comprehensive climate change strategies. Under this program, partners set corporate-wide GHG reduction goals and inventory their emissions to measure progress. Over 35 major companies are now participating, including General Motors, Alcoa, BP, Pfizer, Staples, International Paper, IBM, Miller Brewing, Eastman Kodak and Target.

Voluntary Registry for Reporting GHG Reductions. Responding to President Bush's February 2002 charge, the Secretaries of Energy, Commerce and Agriculture, and the EPA Administrator, provided the President with their initial recommendations for enhancing and improving the DOE's greenhouse gas emissions reduction registry. The improvements are intended to enhance the accuracy, reliability, and verifiability of greenhouse gas reductions measurements. As part of the 2002 public comment process, DOE hosted workshops in Houston, Washington, San Francisco and Chicago. Final guidelines are anticipated in early 2004.

International Outreach:

International Cooperation. The U.S. is engaged in extensive international efforts on climate, both through multilateral and bilateral activities. Multilaterally, the U.S. is by far the largest funder of the activities of the UN Framework Convention on Climate Change and the Intergovernmental Panel on Climate Change, and leads R & D projects through the Generation IV International Forum, which is developing the next-generation nuclear systems to produce electricity and hydrogen for transportation use without emitting greenhouse gas emissions. Bilaterally, the U.S. has developed a number of agreements with major international partners to pursue research on global climate change and deploy climate observation systems, collaborate on energy and sequestration technologies, and explore methodologies for monitoring and measuring GHG emissions. To date, new bilateral agreements have been established with countries representing over 70 percent of global greenhouse gas emissions: Australia, Japan, China, India, Italy, Canada, Russia, the Republic of Korea, New Zealand, Mexico, the European Union and CONCAUSA, an organization of seven Central American countries.

Global Environmental Facility (GEF). As part of a \$2.2 billion international replenishment agreement, the Bush Administration has pledged \$500 million to the GEF over the next 4 years (the most of any country) to help developing countries address environmental problems, including global climate change. The GEF is the financial mechanism under the United Nations Framework Convention on Climate Change and the United States' contribution is the largest of any country. This commitment, which will fund technology transfer and capacity building in developing countries, represents a 16 percent increase over the U.S. contribution in the previous replenishment.

United States Agency for International Development. The Administration has requested \$155 million in FY '04 for USAID's programs that fund the transfer of advanced technologies to developing countries, including cleaner, more efficient energy technologies, technologies to make

manufacturing and agriculture more productive and efficient, and programs to foster responsible forestry practices.

Tropical Forest Conservation. In FY '03, the Bush Administration will direct \$50 million for tropical forest conservation. These funds will provide the resources needed to pursue additional 'debt-for-nature' projects under the Tropical Forest Conservation Act and contribute to the Congo Basin Forest Partnership launched by Secretary of State Powell and EPA Administrator Whitman in September 2002 to preserve eleven key landscapes in Cameroon, Central African Republic, Democratic Republic of the Congo, Equatorial Guinea, Gabon, and the Republic of the Congo.

April 9, 2003

The Honorable Bill Frist
Majority Leader
United States Senate
Washington, DC 20510

The Honorable James Inhofe
Chairman, Committee on Environment
and Public Works
United States Senate
Washington, DC 20510

The Honorable Pete Domenici
Chairman, Committee on Energy
and Natural Resources
United States Senate
Washington, DC 20510

The Honorable Richard Lugar
Chairman, Committee on Foreign
Relations
United States Senate
Washington, DC 20510

Dear Mr. Leader and Chairmen:

As the Senate prepares for consideration of legislation to implement a national energy policy, I would like to provide you with an account of the actions taken by the Administration to implement President Bush's climate change strategy.

The importance of the climate change issue was recognized in the President's May 2001 National Energy Policy, which recommended that federal agencies develop "innovative approaches to address the issue of global climate change." To fulfill this objective, the President convened a cabinet-level process to advance our research on global climate science and energy technologies, and to develop mitigation initiatives. The President directed his cabinet to pursue a more comprehensive range of domestic and international actions to address the issue of climate change that taps the power of markets, realizes the promise of technology and ensures the widest-possible global participation, with sustained economic growth.

In February 2002, the President committed the United States to an ambitious national goal to reduce the greenhouse gas intensity of the American economy by 18 percent over the next 10 years. Meeting this commitment will prevent more than 500 million metric tons of carbon-equivalent emissions through 2012. Included in the President's announcement were directives to his cabinet to implement a broad range of domestic and international actions. These actions are underway and are outlined in the attached fact sheet. Even as we focus on implementation, the cabinet-level policy process remains in place to oversee and direct this comprehensive program, and to adjust to new information and opportunities going forward. Our actions to date include:

- Large budget increases for global climate change, (\$4.5 billion, a 17 percent increase).
- Tax incentives through 2008 for renewable energy, and hybrid and fuel cell vehicles (\$4.4 billion).
- New investments in private sequestration efforts under the multi-billion dollar 2002 Farm Bill conservation programs.
- A cabinet-level Committee on Climate Change Science and Technology Integration.
- New investments in federal energy and carbon sequestration technology programs, including: hydrogen energy and fuel cell vehicles; a \$1 billion demonstration project to build a commercial scale, zero-emissions coal fired power plant; and a long term, international partnership on fusion energy.
- Sustained funding for climate science programs (\$1.7 billion in FY 2004).
- Fuel economy increases for SUVs and light trucks, saving 3.6 billion gallons of gasoline.
- Partnering with American business and industry on commitments to reduce greenhouse gas emissions.
- Enhancing the voluntary registry for reporting reductions of greenhouse gas emissions.
- Engaging in extensive international efforts, through both bilateral agreements and multilateral efforts.
- Providing more funding to the Global Environment Facility than any other nation (\$500 million committed in next four years as part of \$2.2 billion replenishment).
- Funding deployment of advanced technologies in developing nations through the U.S. Agency for International Development (\$155 million requested in FY 2004).
- International tropical forest conservation efforts (\$50 million).

The Senate may be asked to consider measures to address climate change, either in the energy bill or other legislative efforts. As this discussion unfolds, I would ask you and your colleagues to keep in mind the comprehensive actions now being undertaken by the Administration in this area and to help inform your Senate colleagues of our broad-based efforts.

If you or your colleagues have any questions on the Administration's efforts in the area of climate change, do not hesitate to contact me.

Sincerely,

James L. Connaughton

cc: Members of the Committee on Energy and Natural Resources
 Members of the Committee on Environment and Public Works
 Members of the Committee on Foreign Relations



Harvey.Reid@epamail.epa.gov
04/11/2003 01:10:16 PM

EPA 13

Record Type: Record

To:

cc: See the distribution list at the bottom of this message
Subject: Re: Draft CEI Response from OSTP

file copy

For your information - EPA has recently received initial "questions for the record" from the Senate Appropriations Committee and the House Appropriations Committee on the FY 2004 President's Budget Request, one of which from Congressman Knollenberg relates to the National Assessment and the Climate Action Report (see attached Word file).

(See attached file: Knollenberg-Climate.doc)



- Knollenberg-Climate.doc

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EPA referral

EPA recommendations

release

EPA 13 file copy

EPA

Congressman Knollenberg (KNO-001)

Questions Submitted for the Record by Congressman Knollenberg

CLIMATE ACTION REPORT: NATIONAL ASSESSMENT AS U.S. POLICY

Question: Despite assurances from the Administration that the National Assessment on Climate Change is not government policy, the EPA submitted the National Assessment to the United Nations as Chapter 6 of the Climate Action Report 2002 as a “policy position or official statements of the U.S. government.” The EPA acknowledges in its Federal Register notice that it’s submission of the Climate Action Report, including Chapter 6, is pursuant to Articles 4.2 and 12 of the United Nations Framework Convention on Climate Change. These Articles request detailed information on a country’s climate change policy. Articles 4.2 and 12 of the UNFCCC state in relevant part:

4.2 (a) Each of these Parties shall adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. These policies and measures will demonstrate that developed countries are taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention... (b) each of these Parties shall communicate, within six months of the entry into force of the Convention for it and periodically thereafter, and in accordance with Article 12, detailed information on its policies and measures referred to in subparagraph (a) above...”

12. 2....Each developed country Party and each other Party included in Annex I shall incorporate in its communication the following elements of information: (a)....A detailed description of the policies and measures that it has adopted to implement its commitment under Article 4, paragraphs 2(a) and 2(b); and (b)....A specific estimate of the effects that the policies and measures referred to in subparagraph (a) immediately above will have on anthropogenic emissions by its sources and removals by its sinks of greenhouse gases during the period referred to in Article 4, paragraph 2(a)...

If the National Assessment does not represent U.S. government policy, what document was submitted under Articles 4.2 and 12 as the U.S. policy?

Answer:



CEQ
218
PC

EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY

4/14/03

Ken
Kemeran
Deb

Please look over my
suggested changes to this umpteenth
draft of climate section for EPA
State of the Environment Report.

By COB today, if possible →

Thank Phil

cc: Alon

CEQ
225
PC



Phil Cooney
04/16/2003 06:07:38 PM

Record Type: Record

To: Alan Hech/CEQ/EOP@EOP
cc: Pemberton.John@epa.gov
Subject: CEQ comments on draft EPA report



gcepasoerpt403.doc

Alan, attached is a redline that compiles the comments that I have collected from CEQ staff (including my own). These changes must be made, as we have discussed. Many thanks, Phil

002146

CEQ 004749

CEQ 120 PC

Stanley S. Sokul
04/18/2003 11:11:46 AM

Record Type: Record

To: Harvey.Reid@epamail.epa.gov
cc: phil.cooney@ceq/eop@eop, mclean.brian@epamail.epa.gov
bcc:
Subject: Re: Rep. Knollenberg

OK . Your response looks good to me, and consistent with our CEI response. Thanks much.
Stan
Harvey.Reid@epamail.epa.gov



Harvey.Reid@epamail.epa.gov
04/18/2003 10:44:40 AM

Record Type: Record

To: Stanley S. Sokul/OST/PEOP@EOP
cc: Phil Cooney/CEQ/EOP@EOP, Mclean.Brian@epamail.epa.gov
Subject: Re: Rep. Knollenberg

Stan:

I've been out most of the week - sorry for the delay.

I have attached our draft response below. Note that this is still going through review within EPA's budget and Congressional offices and then would be circulated for normal interagency clearance before going to the Hill. You'll see that we noted that chapter 6 fulfills a specific requirement under the UNFCCC National Communication guidelines that cites articles 4.1(b) and (e) of the Convention.

Best regards,
Reid

(See attached file: knollenberg April 2003 question on CLIMATE ACTION REPORT.doc)

ssokul@osp.eop.g

001037

CEQ 004751

Harvey.Reid@epamail.epa.gov
04/18/2003 10:44:40 AM



Record Type: Record

To: Stanley S. Sokol/OSTP/EOP@EOP
cc: Phil Cooney/CEQ/EOP@EOP, Mclean.Brian@epamail.epa.gov
Subject: Re: Rep. Knollenberg

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Best regards,
Reid

(See attached file: knollenberg April 2003 question on CLIMATE ACTION REPORT.doc)

ssokol@ostp.eop.g
ov
04/16/2003 06:49 |
PM

To: Reid Harvey/DC/USEPA/US@EPA
cc: Phil_Cooney@ceq.eop.gov
Subject: Re: Rep. Knollenberg

Harvey,

Thanks for sharing this question for the record from Rep. Knollenberg.

The

(b)(5)

1. in accordance with Article 4, paragraph 1, each Party shall communicate to the Conference of the Parties, through the secretariat, the following elements of information:

(a)...A national inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, to the extent its capacities permit, using comparable methodologies to be promoted and agreed upon by the Conference of the Parties;

(b)...A general description of steps taken or envisaged by the Party to implement the Convention; and

(c)....Any other information that the Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its communication, including, if feasible, material relevant for calculations of global emission trends.

2...Each developed country Party and each other Party included in Annex I shall incorporate in its communication the following elements of information:

(a)...A detailed description of the policies and measures that it has adopted to implement its commitment under Article 4, paragraphs 2(e) and 2(b); and

(b)...A specific estimate of the effects that the policies and measures referred to in subparagraph (e) immediately above will have on anthropogenic emissions by its sources and removals by its sinks of greenhouse gases during the period referred to in Article 4, paragraph 2(e).

(Embedded image moved. Harvey Reid@epamail.epa.gov to file: 04/11/2003 01:10:16 PM pic18436.pcx)

Record Type: Record

To:

cc: See the distribution list at the bottom of this message

Subject: Re: Draft CEI Response from OSTP

For your information - EPA has recently received initial "questions for the record" from the Senate Appropriations Committee and the House Appropriations Committee on the FY 2004 President's Budget Request, one of which from Congressman Knollenberg relates to the National Assessment and the Climate Action Report (see attached Word file).

(See attached file: Knollenberg-Climate.doc)

(See attached file: Knollenberg-Climate.doc)

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(See attached file: pic18436.pcx)



- knollenberg April 2003 question on CLIMATE ACTION REPORT.doc

- Knollenberg-Climate.doc

- pic18436.pcx

CLIMATE ACTION REPORT: NATIONAL ASSESSMENT AS U.S. POLICY

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4.2 (a) Each of these Parties shall adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. These policies and measures will demonstrate that developed countries are taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention... (b) each of these Parties shall communicate, within six months of the entry into force of the Convention for it and periodically thereafter, and in accordance with Article 12, detailed information on its policies and measures referred to in subparagraph (a) above..."

12. 2....Each developed country Party and each other Party included in Annex I shall incorporate in its communication the following elements of information: (a)....A detailed description of the policies and measures that it has adopted to implement its commitment under Article 4, paragraphs 2(a) and 2(b); and (b)....A specific estimate of the effects that the policies and measures referred to in subparagraph (a) immediately above will have on anthropogenic emissions by its sources and removals by its sinks of greenhouse gases during the period referred to in Article 4, paragraph 2(a)...

If the National Assessment does not represent U.S. government policy, what document was submitted under Articles 4.2 and 12 as the U.S. policy?

Answer:

(B)(5)

• •

Under Section VII of the "Guidelines for the Preparation of National Communications by Parties Included in Annex I to the Convention (FCCC/CP/1999/7)", Parties "shall include information on the expected impacts of climate change and an outline of the action taken to implement Article 4.1(b) and (c) with regard to adaptation." In addition, Parties "may also report on specific results of scientific research in the field of vulnerability assessment and adaptation." Chapter 6 of the Climate Action Report on "Impacts and Adaptation" references the National Assessment in responding to Section VII, but this reference did not convert the Assessment into an official policy position or statement of the United States Government, no more than reference to the IPCC assessments converted them into official policy positions or statements of the United States Government.

(9X51)

Congressman Knollenberg (KNO-001)

Questions Submitted for the Record by Congressman Knollenberg

CLIMATE ACTION REPORT: NATIONAL ASSESSMENT AS U.S. POLICY

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Answer:

Remarks of Linda Fisher
Deputy Administrator, U.S. Environmental P
at the 2003 Earth Technology Forum
Washington, D.C.

acy

April 22, 2003

Thank you [Kevin] for that kind introduction.

I am delighted to be here to spend time with you this morning. Protection of the earth's stratospheric ozone layer and global climate change are critically important environmental issues. And how appropriate on Earth Day to be coming together to focus on technological solutions to these global environmental challenges.

I must also confess that both of these issues are near and dear to my heart. During my first tenure at EPA, I shared a small part of the history of both. I had the good fortune to be EPA Administrator Lee Thomas's chief of staff during the negotiations on the original Montreal Protocol. A few years later, I headed up EPA's climate policy work around the time the UN Framework Convention on Climate Change was agreed to. These experiences gave me an opportunity to work on issues I care deeply about.

This morning I would like to draw from this experience to give you a personal view of what I think worked well in the context of the Montreal Protocol, and the lessons that we can draw from that to advance global approaches to climate change.

Let me start by saying that anybody who says the Montreal Protocol was easy and climate change hard wasn't around during the early days leading up to the Montreal Protocol. Issues revolving around scientific uncertainty, separating out natural from manmade impacts, and the costs and availability of substitutes were the subject of countless meetings, Congressional hearings, legal challenges, scientific debates, lengthy reports, and, of course, press releases. For example, for a time many were alleging that the ozone hole was a natural phenomenon, or that a viable policy option was to wear sunhats and sun screen. These issues first had to be sorted out first domestically in developing a national position and then carried forward into the international negotiations. I think it is fair to say that the Montreal Protocol and its early amendments stand out as one of the greatest environmental achievements under President Reagan and President Bush. I also know that many of you here today played an enormous role in making the Montreal Protocol become a reality and as a nation, we are thankful for your contributions.

Its also important not to speak of the Montreal Protocol in the past tense. As many of you in the audience know, there are still important challenges to realizing its full promise. Developing countries need help from the Protocol's landmark Multilateral Fund to help them phase out their production and use of ozone-depleting chemicals, address HCFC uses, and manage the phase-out and critical use exemption for methyl bromide. We remain fully committed to making sure the last few chapters of this story extend the success achieved earlier on.

001643

CEQ 004760

U.M.J
Jim -
This is
worth your
review.

Phil

I want to highlight two "lessons learned" from the Montreal Protocol experience that I believe have direct relevance for addressing global climate change.

First, the Montreal Protocol and its subsequent amendments rested on a strong scientific basis that was accepted internationally. Had all the scientific uncertainties been resolved about the ozone hole? Did we fully understand the role of man-made chemicals in depleting the ozone layer and the associated impacts on health and the environment? Of course not. But the scientific understanding had substantially advanced from the initial theory posited in the 1974 Nature article by Mario Molina and Sherwood Rowland. Years of dedicated research and international assessment had advanced the degree of understanding and reduced the uncertainties to a point that the U.S. and the international community had a strong basis to act.

In developing his policy to address climate change, President George Bush has made advancing our scientific understanding his number one priority. The U.S. leads the globe in supporting science research aimed at advancing our understanding. I am sure many of you are participating in the efforts underway as part of the Climate Change Science Program under Jim Mahoney at NOAA. These efforts provide a strategic focus to our research activities that should provide clearer direction and a stronger foundation upon which future policy actions can be based.

But given the risks of climate change, actions beyond additional research are clearly warranted. The second lesson from the Montreal Protocol is that a staged approach, starting with small first steps, can be a very effective way to begin. At this point, few may remember that the original Protocol called for a 50% reduction in CFCs phased-in over ten years and a freeze on halons. The steps were aimed initially at going after the low hanging fruit -- those reductions that were cost effective, and were available with current technology. Many of these reductions were achieved first through voluntary programs. When further scientific evidence made earlier reductions and broader coverage of chemicals necessary, these first steps provided the foundation essential to being in a position to take more stringent actions.

In the context of climate change, in February of this year this Administration announced dramatically expanded partnerships with most of the heavy energy using industrial sectors aimed at improving their greenhouse gas intensity. These agreements include electricity production, mining, chemicals, petroleum refining, cement, auto manufacturing, magnesium, forestry and paper products to name just a few. These sectors are working through voluntary agreement with DOE, USDA or EPA toward the President's goal of achieving an 18 percent improvement in greenhouse gas intensity by 2012.

These agreements and this target are not aimed at "solving" climate change, but they effectively engage a broad spectrum across the private sector in taking voluntary actions that form an important near-term step.

While some scoff at the voluntary nature of these agreements, I can state unequivocally that EPA's experience with voluntary programs have produced real results in reducing greenhouse gas emissions. Let me give you just a few examples:

- Through reducing emissions from natural gas pipelines, from coalbed methane capture and reduced flaring of natural gases, methane emissions in the US are 5 percent below what they were in 1990 and are expected to remain at that level through 2020, despite expanded activities in these sectors.
- In 2002 alone, Americans – with the help of ENERGY STAR labels – reduced greenhouse gas emissions equal to taking 14 million cars off the road, saved enough energy to power 15 million homes, and saved \$7 billion.
- EPA's voluntary agreements with the Semiconductor Association call for reducing high-global warming gases known as PFCs to 5 percent below 1995 levels by 2010.
- Our voluntary agreement with the magnesium industry calls for phasing out their emissions of SF₆, another very potent greenhouse gas, by the end of 2010.
- Our Mobile Air Conditioning Climate Protection Partnership will dramatically reduce HFC refrigerant emissions while increasing energy efficiency.

We believe in the environmental integrity of our voluntary agreements. We know that efforts to expand them to more sectors and more participants will measurably reduce greenhouse gases. Voluntary actions are critical steps for us to take in addressing concerns about global warming.

In order to further encourage near-term actions to reduce greenhouse gas emissions, the Administration is committed to enhancing the reporting guidelines under Section 1605b of the Energy Policy Act. The goal of this effort, led by DOE, is to create rigorous standards that will provide the foundation for giving companies transferable credits if they can show real emissions reductions. The key is to create a voluntary reporting system that is transparent, credible and verifiable. The system will also be designed so as to ensure that no firm is penalized for actions it may take today that reduce its emissions.

Reducing scientific uncertainties, and encouraging near-term actions are two important parts of the Administration's climate program, the third important part relates to providing more cost-effective longer-term technological solutions. Dave Conover, who leads this effort at DOE, will be talking to you later this morning and will describe the details of the Climate Change Technology initiative.

I started out by saying that it was wrong to say that the Montreal Protocol was easy. It wasn't, but with time we found the path forward, let me end by saying that we all know climate change is one of the most difficult issues we face. It is different scientifically, politically, economically, and technologically. But with the commitments, talents and energies of those in this room today, I am certain that we will also find the path forward. I particularly want to congratulate the 23 winners of EPA's Stratospheric Protection and Global Warming Awards that will be formally presented at a dinner tonight featuring EPA Administrator Christie Todd Whitman.

Earth Day is a day both to celebrate this precious planet and to recommit ourselves to working toward addressing the challenges we face in safeguarding its treasures. As we look back on our past accomplishments, we should gain both strength and knowledge upon which we can shape our future successes.

I wish you all a productive conference and a Happy Earth day.

0509_f_64s1g003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Nicholas Sundt <nsundt@usgcrp.gov> (Nicholas Sundt <nsundt@usgcrp.gov> [UNKNOWN])

CREATION DATE/TIME: 30-APR-2003 17:31:51.00

SUBJECT:: webcast link for House Science Committee mark-up of HR 1578

TO: ccsp_info@usgcrp.gov (ccsp_info@usgcrp.gov [UNKNOWN])
READ: UNKNOWN

TO: wgcc@usgcrp.gov (wgcc@usgcrp.gov [UNKNOWN])
READ: UNKNOWN

TO: ccsp@usgcrp.gov (ccsp@usgcrp.gov [UNKNOWN])
READ: UNKNOWN

BCC: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])
READ: UNKNOWN

TEXT:
FYI:

Full Science Committee - Markup
H.R. 766, Nanotechnology Research and Development Act of 2003
H.R. 1578, Global Change Research and Data Management Act of 2003
10:00 A.M. - 12:00 NOON
2318 Rayburn House Office Building (WEBCAST)
Contact: Republican Staff: H.R. 766-Peter Rooney / H.R. 1578-Eric
Webster Democrat Staff: H.R. 766-Jim Wilson / H.R. 1578-Jean Fruci
webcast: <http://www.house.gov/science/webcast/index.htm>

003300

April 29, 2004

Workshop Agenda
Learning from the National Assessment
AAAS Building, 1200 New York Avenue, NW
Washington, DC

CEQ 13

PC

- 8:00 Registration
Coffee, tea and light breakfast snacks
- 8:30 Welcome and an explanation of the workshop's objectives – G. Morgan
- 8:40 Questions and Discussion
- 8:50 The National Assessment: An overview of the process – T. Janetos
- 9:10 The National Assessment: A view from the trenches – A. Fisher
- 9:20 Questions and Discussion
- 9:35 The survey of folks involved with the National Assessment – G. Morgan
- 9:45 Questions and Discussion
- 10:00 Break
- 10:15 Framing the first Working Group Sessions on
"Performing the Assessment" – G. Morgan
- 10:30 Break into working groups
- Group A: Assessment Methods – S. Schneider, chair
Relevant Discussion Notes: 1,2,3,4
- Group B: Social Issues – T. Wilbanks, chair
Relevant Discussion Notes: 2,4,5,6
- Group C: Stakeholders and Communication – K. Jacobs, chair
Relevant Discussion Notes: 2,5,6,7
- 12:00 Breakout reports followed by Questions and Discussion
- 12:45 Working Lunch

001928

CEQ 004767



Phil Cooney
05/01/2003 11:32:29 AM

Record Type: Record

To: Bryan J. Hannegan/CEQ/EOP@EOP
cc: John A. List/CEA/EOP@EOP
Subject: 1605(b) Next Steps - close hold, please

[REDACTED]

----- Forwarded by Phil Cooney/CEQ/EOP on 05/01/2003 11:28 AM -----



"Anderson, Margot" <Margot.Anderson@hq.doe.gov>
04/30/2003 10:46:33 AM

Record Type: Record

To: "John Beale (E-mail)" <beale.john@epa.gov>, "Bill Hohenstein (E-mail)" <whohenst@oce.usda.gov>, Phil Cooney/CEQ/EOP@EOP
cc: See the distribution list at the bottom of this message
Subject: 1605(b) Next Steps - close hold, please

John Beale, Bill Hohenstein, and Phil Cooney,

[REDACTED]

Conference Call information

Date: 05/02/2003

Greenhouse Effects/1605(b)
Draft Strawman

004276

CEQ 004769

Time: 01:00PM to 02:30PM (Eastern Time)
Number: 301-903-6011

<<Draft Card Strawman v7.doc>> <<Strawman Summary.doc>> <<picture of Strawman.ppt>>



- att1.htm



- Draft Card Strawman v7.doc



- Strawman Summary.doc



- picture of Strawman.ppt

Message Copied To:

"Friedrichs, Mark" <Mark.FRIEDRICHS@hq.doe.gov>
"Rypinski, Arthur" <Arthur.Rypinski@hq.doe.gov>
"Bradley, Richard" <Richard.BRADLEY@hq.doe.gov>
"Dobriansky, Larisa" <Larisa.Dobriansky@hq.doe.gov>
"Marcois, Bart" <Bart.Marcois@hq.doe.gov>
"Conover, David" <David.Conover@hq.doe.gov>

~~4263~~

0517_f_pw53g003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:David Halpern (CN=David Halpern/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 1-MAY-2003 18:24:15.00

SUBJECT:: Sensitivity Analysis of CCSP Overview of Strategic Plan

TO:watsonhl@state.gov (watsonhl@state.gov [UNKNOWN])

READ:UNKNOWN

TO:pcooney@ceq.eop.gov (pcooney@ceq.eop.gov [CEQ])

READ:UNKNOWN

CC:David Halpern (CN=David Halpern/OU=OSTP/O=EOP@EOP [OSTP])

READ:UNKNOWN

TEXT:

Phil and Harlan,

Please send me your comments by 12 noon tomorrow (Friday). Thanks.

Dave

003301

0522_f_jsm3g003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Bryan J. Hannegan (CN=Bryan J. Hannegan/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 2-MAY-2003 09:37:17.00

SUBJECT:: Commerce Hearing on NAS Review of CCSP

TO: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])

READ: UNKNOWN

TEXT:

next Wednesday May 7 at 9:30 -- no Administration witnesses, of course,
just members of the NAS panel

003302

0523_f_5vm3g003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 2-MAY-2003 09:38:28.00

SUBJECT:: FYI: Commerce Hearing on NAS Review of CCSP

TO: Scott.rayder@noaa.gov @ inet (Scott.rayder@noaa.gov @ inet [UNKNOWN])
READ: UNKNOWN

TO: Craig.montesano@noaa.gov @ inet (Craig.montesano@noaa.gov @ inet [UNKNOWN])
READ: UNKNOWN

TO: James.R.Mahoney@noaa.gov @ inet (James.R.Mahoney@noaa.gov @ inet [UNKNOWN])
READ: UNKNOWN

TEXT:

----- Forwarded by Phil Cooney/CEQ/EOP on 05/02/2003
09:37 AM -----

From: Bryan J. Hannegan on 05/02/2003 09:36:47 AM
Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP
CC:
Subject: Commerce Hearing on NAS Review of CCSP

next wednesday May 7 at 9:30 -- no Administration witnesses, of course,
just members of the NAS panel

003303

0525_f_b254g003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Stephanie.Harrington@noaa.gov (Stephanie.Harrington@noaa.gov [UNKNOWN])

CREATION DATE/TIME: 2-MAY-2003 14:41:16.00

SUBJECT:: Fwd: [Fwd: Climate change hearing]

TO:CCSP@usgcrp.gov (CCSP@usgcrp.gov [UNKNOWN])

READ:UNKNOWN

CC:craig.montesano@noaa.gov (craig.montesano@noaa.gov [UNKNOWN])

READ:UNKNOWN

CC:CCSP_info@usgcrp.gov (CCSP_info@usgcrp.gov [UNKNOWN])

READ:UNKNOWN

BCC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

READ:UNKNOWN

TEXT:

FYI - Dr. Mahoney has heard that the following members of the NRC review panel for the CCSP Strategic Plan will be testifying at the May 7 hearing (see forwarded message). We have not seen these names confirmed in writing.

- Thomas E. Graedel
- Anthony C. Janetos
- Diana M. Liverman
- Michael J. Prather

Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944

Return-path: <Craig.Montesano@noaa.gov>

Received: from relay-east.nems.noaa.gov ([205.156.4.216]) by ssmcmail.nems.noaa.gov (Netscape Messaging Server 4.15) with ESMTMP id HE9T6400.3QS for <Stephanie.Harrington@ssmcmail.nems.noaa.gov>; Fri, 2 May 2003 13:42:05 -0400

Received: from nems.noaa.gov ([205.156.4.217]) by relay-east.nems.noaa.gov (Netscape Messaging Server 4.15) with ESMTMP id HE9T6200.I6X for <stephanie.harrington@noaa.gov>; Fri, 2 May 2003 13:42:02 -0400

Received: by nems.noaa.gov; id NAA04508; Fri, 2 May 2003 13:42:01 -0400 (EDT)

Received: from ofant89.hchb.noaa.gov(140.90.150.24) by gummo.nems.noaa.gov via csmmap (V4.1) id srCAAzeayYi; Fri, 2 May 03 13:41:59 -0400

Received: from noaa.gov ([205.156.26.122]) by ofant89.hchb.noaa.gov (Netscape Messaging Server 4.15) with ESMTMP id HE9SZY00.DDT; Fri, 2 May 2003 13:38:22 -0400

Date: Fri, 02 May 2003 13:42:17 -0400

From: "Craig Montesano" <Craig.Montesano@noaa.gov>

Subject: [Fwd: Climate change hearing]

To: james.r.mahoney@noaa.gov, stephanie.harrington@noaa.gov, Glynda Becker <gbecker@doc.gov>, "brook.h.davis" <brook.h.davis@noaa.gov>

Message-id: <3EB2ADF9.6D38AD88@noaa.gov>

MIME-version: 1.0

X-Mailer: Mozilla 4.79 [en] (Windows NT 5.0; U)

Content-type: text/plain; charset=us-ascii

Content-transfer-encoding: 7BIT

X-Accept-Language: en

There are no Administration witnesses -- just NRC.

003304

----- Original Message -----

Subject: Climate change hearing

0525_f_b254g003_ceq.txt

Date: Fri, 02 May 2003 11:29:26 -0400
From: "Howard S Marks" <Howard.S.Marks@noaa.gov>
To: Craig Montesano <Craig.Montesano@noaa.gov>
CC: Velna L Bullock <Velna.L.Bullock@noaa.gov>

CQ SCHEDULES

Senate Commerce, Science and Transportation Committee
May 7, 2003 - New
CLIMATE CHANGE
Full Committee Hearing

Senate Commerce, Science and Transportation Committee (Chairman McCain, R-Ariz.) will hold a hearing on the review conducted by the National Academy of Sciences of the administration's draft U.S. Climate Change Science Program Strategic Plan.

Where and when:
May 7, 9:30 a.m., 253 Russell Bldg.

Contact: Jeanne Bumpus at 202-224-1251

0526_f_1q54g003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:David Halpern (CN=David Halpern/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 2-MAY-2003 14:51:18.00

SUBJECT:: Testimony at May 7th Hearing of McCain Committee on Commerce, Science and Transportation

TO:kharring@ostp.eop.gov @ inet (kharring@ostp.eop.gov @ inet [OSTP])
READ:UNKNOWN

TO:Maureen R. O'Brien (CN=Maureen R. O'Brien/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

CC:David Halpern (CN=David Halpern/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

CC:Clifford J. Gabriel (CN=Clifford J. Gabriel/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

CC:pcooney@ceq.eop.gov (pcooney@ceq.eop.gov [CEQ])
READ:UNKNOWN

CC:Kathie L. Olsen (CN=Kathie L. Olsen/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TEXT:

Senate Commerce, Science and Transportation Committee
May 7, 2003 - New
CLIMATE CHANGE
Full Committee Hearing

Senate Commerce, Science and Transportation Committee (Chairman McCain, R-Ariz.) will hold a hearing on the review conducted by the National Academy of Sciences of the administration's draft U.S. Climate Change Science Program Strategic Plan.

Where and when:
May 7, 9:30 a.m., 253 Russell Bldg.

FYI From CCSP - Dr. Mahoney has heard that the following members of the NRC review panel for the CCSP Strategic Plan will be testifying at the May 7 hearing (see forwarded message). We have not seen these names confirmed in writing.

- Thomas E. Graedel
- Anthony C. Janetos
- Diana M. Liverman
- Michael J. Prather

There are no Administration witnesses -- just NRC.

003304

0527_f_6s54g003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Nicholas Sundt <nsundt@usgcrp.gov> (Nicholas Sundt <nsundt@usgcrp.gov> [UNKNOWN])

CREATION DATE/TIME: 2-MAY-2003 14:51:57.00

SUBJECT:: RE: [Fwd: Climate change hearing]

TO: CCSP@usgcrp.gov (CCSP@usgcrp.gov [UNKNOWN])
READ: UNKNOWN

TO: Stephanie.Harrington@noaa.gov (Stephanie.Harrington@noaa.gov [UNKNOWN])
READ: UNKNOWN

CC: craig.montesano@noaa.gov (craig.montesano@noaa.gov [UNKNOWN])
READ: UNKNOWN

CC: CCSP_info@usgcrp.gov (CCSP_info@usgcrp.gov [UNKNOWN])
READ: UNKNOWN

BCC: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])
READ: UNKNOWN

TEXT:
FYI:

Formal announcement for the hearing is posted at:
<http://commerce.senate.gov/hearings/witnesslist.cfm?id=750>
Note that the posted announcement does not include Prather, but does include Richard Alley and Andrew Solow.

Nick

Climate Change
Full Committee Hearing
Wednesday, May 7 2003 - 9:30 AM -

Description: Full Committee hearing scheduled for Wednesday, in room 253 of the Russell Senate Office Building. Members will discuss the National Academy of Science review of the Administration's Draft U.S. Climate Change Science Program Strategic Plan. Senator McCain will preside.

Opening Remarks:

Dr. Richard Alley
Professor of Geosciences, Pennsylvania State University, Earth System Science Center

Dr. Thomas E. Graedel
Professor of Industrial Ecology, Yale University, Department of Industrial Ecology

Dr. Anthony C. Janetos
Director, H. John Heinz III Center for Science Economics and the Environment

Dr. Diana M. Liverman
Director, Latin American Studies Program, University of Arizona

0527_f_6s54g003_ceq.txt

Dr. Andrew Solow
Associate Scientist and Director, Marine Policy Center, Woods Hole
Oceanographic Institution

0529_f_n984g003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 2-MAY-2003 15:27:35.00

SUBJECT:: Fwd: [Fwd: Climate change hearing]

TO: Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Bryan J. Hannegan (CN=Bryan J. Hannegan/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Kameran L. Onley (CN=Kameran L. Onley/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TEXT:

FYI, Phil

----- Forwarded by Phil Cooney/CEQ/EOP on 05/02/2003
03:26 PM -----

Stephanie.Harrington@noaa.gov
05/02/2003 02:39:11 PM

Record Type: Record

To: CCSP@usgcrp.gov
cc: CCSP_info@usgcrp.gov, craig.montesano@noaa.gov
Subject: Fwd: [Fwd: Climate change hearing]

FYI - Dr. Mahoney has heard that the following members of the NRC review panel for the CCSP Strategic Plan will be testifying at the May 7 hearing (see forwarded message). We have not seen these names confirmed in writing.

- Thomas E. Graedel
- Anthony C. Janetos
- Diana M. Liverman
- Michael J. Prather

Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944

Return-path: <Craig.Montesano@noaa.gov>
Received: from relay-east.nems.noaa.gov ([205.156.4.216]) by ssmcmail.nems.noaa.gov (Netscape Messaging Server 4.15) with ESMTMP id HE9T6400.3QS for <Stephanie.Harrington@ssmcmail.nems.noaa.gov>; Fri, 2 May 2003 13:42:05 -0400
Received: from nems.noaa.gov ([205.156.4.217]) by relay-east.nems.noaa.gov

Page 1

003306

CEQ 004786

0529_f_n984g003_ceq.txt

(Netscape Messaging Server 4.15) with ESMTX id HE9T6200.I6X for
<stephanie.harrington@noaa.gov>; Fri, 2 May 2003 13:42:02 -0400
Received: by nems.noaa.gov; id NAA04508; Fri, 2 May 2003 13:42:01 -0400
(EDT)
Received: from ofant89.hchb.noaa.gov(140.90.150.24) by gummo.nems.noaa.gov
via csmmap (V4.1) id srCAAAYeayYi; Fri, 2 May 03 13:41:59 -0400
Received: from noaa.gov ([205.156.26.122]) by ofant89.hchb.noaa.gov
(Netscape Messaging Server 4.15) with ESMTX id HE9SZY00.DDT; Fri, 2 May
2003 13:38:22 -0400
Date: Fri, 02 May 2003 13:42:17 -0400
From: "Craig Montesano" <Craig.Montesano@noaa.gov>
Subject: [Fwd: Climate change hearing]
To: james.r.mahoney@noaa.gov, stephanie.harrington@noaa.gov, Glynda Becker
<gbecker@doc.gov>, "brook.h.davis" <brook.h.davis@noaa.gov>
Message-id: <3EB2ADF9.6D38AD88@noaa.gov>
MIME-version: 1.0
X-Mailer: Mozilla 4.79 [en] (windows NT 5.0; U)
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7BIT
X-Accept-Language: en

There are no Administration witnesses -- just NRC.

----- Original Message -----
Subject: Climate change hearing
Date: Fri, 02 May 2003 11:29:26 -0400
From: "Howard S Marks" <Howard.S.Marks@noaa.gov>
To: Craig Montesano <Craig.Montesano@noaa.gov>
CC: Velna L Bullock <Velna.L.Bullock@noaa.gov>

CQ SCHEDULES
Senate Commerce, Science and Transportation Committee
May 7, 2003 - New
CLIMATE CHANGE
Full Committee Hearing

Senate Commerce, Science and Transportation Committee (Chairman McCain,
R-Ariz.) will hold a hearing on the review conducted by the National
Academy of Sciences of the administration's draft U.S. Climate Change
Science Program Strategic Plan.

Where and when:
May 7, 9:30 a.m., 253 Russell Bldg.

Contact: Jeanne Bumpus at 202-224-1251

0532_f_xuc4g003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:kolsten@ostp.eop.gov (kolsten@ostp.eop.gov [OSTP])

CREATION DATE/TIME: 2-MAY-2003 16:47:54.00

SUBJECT:: EOP/State Sensitivity Review of Advance Copy of Overview of CCSP Strategic Plan

TO:James.R.Mahoney@noaa.gov (James.R.Mahoney@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:Marcus Peacock (CN=Marcus Peacock/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

CC:watsonhl@state.gov (watsonhl@state.gov [UNKNOWN])
READ:UNKNOWN

CC:David Halpern (CN=David Halpern/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

CC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TEXT:
Jim:

Additional EOP/State mark-up with respect to "WH" review is attached.

Kathie

(See attached file: gcscivisstmet503.doc)

(See attached file: gcscitopdown503.doc)

- gcscivisstmet503.doc - gcscitopdown503.doc===== ATTACHMENT 1

=====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert NSREOP0103:[ATTACH.D23]SREOP01300G4CUX.001 to ASCII,
The following is a HEX DUMP:

===== END ATTACHMENT 2 =====

Cooney, Phil

From: Watson, Harlan L (OES) [WatsonHL@state.gov]

Sent: Tuesday, May 04, 2004 10:18 AM

To: Connaughton, James; Peel, Kenneth L.; Cooney, Phil

Subject: Gao Feng's (China) April 19 PowerPoint Presentation to METI's Industrial Council in Tokyo: "NEW CLIMATE CHANGE REGIME: CHINESE VIEW"

001728

CEQ 004793

5/4/2004

CEQ 7 GRC

SECOND ANNUAL CONFERENCE ON CARBON SEQUESTRATION

Steering Committee...

Scott Kilara, Chairman
National Energy Technology
Laboratory
U.S. Dept. of Energy

Robert Beck
National Coal Council

David Sneyd
USDOE, Environ. Sys., Fossil Energy

Jeanette S. Bird
Ohio Coal Development Office

Howard Haring
Massachusetts Institute of Technology

Gardiner Hill
BP Group Environmental Technology

William G. Hebenstreit
U.S. Dept. of Ag., Climate Change Off.

Robert Kane
USDOE, Planning & Environ., FE

Arthur Lee
Chevron Texaco Corporation

Kenneth M. Mahan
NETL, USDOE

John Martin
ALCOA Power Inc.

The Nelsons
The Nelsons Company

Robert Thomas
Energy Services & Control Grp., Ltd.

John Warden
Peabody Energy

Ex-Officio Members
Charles Schmidt
NETL, USDOE

Edward L. Heilmanski
E. Thomas Marchese
EXCHANGE/MONITOR Pubs. & Forums

Developing & Validating the Technology Base to Reduce Carbon Intensity

May 5 - 8, 2003
Hilton Alexandria Mark Center
Alexandria, VA

Dear Colleague:

The U.S. Department of Energy together with other federal agencies, including the Departments of Commerce, Agriculture and the Environmental Protection Agency, is working intensively in a variety of areas to meet President George W. Bush's goal of achieving an "18 percent reduction in greenhouse gases in the next ten years...while sustaining economic growth." One field of endeavor that can provide a pathway to achieving this goal and be a bridge to a new energy economy is carbon sequestration. The President recognized this in announcing his climate change initiative. This is the focus of this conference. Starting in 2003 as an annual event, and building on DOE's National Energy Technology Laboratory 2001 conference which drew over 450 participants, it will focus on the "innovation" and science and technological advances the President has called for to make carbon sequestration a practicable and commercially deployable technology to address his carbon intensity reduction goal.

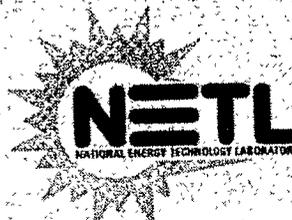
If you:

- Conduct R&D in this area;
- Work for a company that relies on utilizing carbon-based products which result in greenhouse gas emissions;
- Are developing technologies to utilize natural or already existing resources that could reduce atmospheric carbon emissions, and
- Have an innovative approach or technology to share....

you should consider presenting a paper. Or, if you are interested in getting involved in this critical national program, at the minimum, participating. Invited speakers will include key decisionmakers from within DOE, involved key federal agencies and the leading innovators in the field.

If you are going to submit a paper, keep in mind the President's words—"technological innovation"—that's what we will be looking for in reviewing your abstract.

Sponsored by...



001996

CEQ 004795

ACCOMMODATIONS

The rate for Conference attendees at the Hilton Alexandria Mark Center is \$179.00 for single or double occupancy plus applicable city and state taxes. A number of rooms are available for government employees at the \$150.00 government per-diem rate. To qualify for this special rate, you must have a government identification card.

To guarantee a reservation, call the Hilton Alexandria Mark Center at 703-845-1010 by April 5. Identify yourself as a Carbon Conference Participant. If space is available, the above rates will apply for attendees two days prior and two days after our program dates. We recommend getting your reservations prior to April 5 to assure a place.

GROUND TRANSPORTATION

From Regan National Airport: The Hilton Alexandria Mark Center provides complimentary transportation to and from National Airport every hour (6 a.m. to 11 p.m.) A private taxi is also a reasonable choice.

From Baltimore Airport: Call Super Shuttle and make reservations for the most economical rate. **From Dulles Airport:** Taxi will be around \$50.00. Other means are available— see the Airport info desk.

Garage parking is available to hotel guests for \$6.00/day. Non-guests: \$3.00/hr up to \$11.00 maximum per day.

SECOND ANNUAL CONFERENCE ON CARBON SEQUESTRATION

*Developing & Validating the Technology
Base to Reduce Carbon Intensity*

HILTON ALEXANDRIA MARK CENTER

The Conference site is the Hilton Alexandria Mark Center, 5000 Seminary Road, Alexandria, VA 22311; Phone 703-845-1010. It is located seven miles southwest of Washington, DC and National Airport and Twenty miles southeast of Dulles Airport, just off the Seminary Road exit from I-395. It is ten minutes from Washington, DC, the Smithsonian and all monuments.

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REGISTRATION FORM

SECOND ANNUAL CONFERENCE ON CARBON SEQUESTRATION MAY 5 – 8, 2003

Registration Fees: **CIRCLE ONE**
General admission for non-gov't: \$795.00
**Non-DOE government and
academic employees:** \$395.00
(Add \$100.00 to above after April 1, 2003)
For DOE employees: \$295.00
(Includes: Three continental breakfasts, two lunches, three
receptions, one dinner, a copy of the Briefing Book and a CD
copy of the Proceedings.)

Return this form and payment to: ExchangeMonitor
Publications & Forums, P.O. Box 65782, Washington,
DC 20035, Tel: 877-303-7367 or 202-296-2814 ext. 16,
Fax: 202-296-2805.

Payment /Cancellation Policy: Anyone who registers
and cancels after April 11, 2003 is subject to a \$200.00
service fee. Fees paid will be forfeited for non-
attendance or cancellation after April 21, 2003.
Substitutions welcome.

I am bringing _____ guests to all social events at \$100.00 per guest.

Please list guest names _____

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Title _____

Affiliation _____

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City _____

State _____ Zip _____

Phone _____ Fax _____

E-mail address _____

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Cardholder Name: _____

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See WWW.CARBONSQ.COM FOR UPDATES

An Invitation to Present a Paper

Individuals who are interested in giving an oral presentation at the *Second Annual Conference on Carbon Sequestration* are encouraged to submit an abstract for review. Please feel free to submit sub-topics not specifically defined but are related to the main topics listed below in bold type.

Topics

- **Separation and Capture**
 - Industrial Efforts
 - Absorption Studies
 - Power Systems Concepts
 - Environmental Aspects
 - Membranes
 - Advanced Concepts
- **Sequestration of Carbon Emissions in Geologic Formations**
 - Enhanced Oil/Gas Recovery
 - Enhanced Coal Bed Methane Recovery
 - Saline Aquifers
 - Modeling Data
 - Environmental Aspects
 - Co-Benefits
 - MMV Technologies
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 - Ecosystem Behavior
 - Science-Based Ecosystem Potentials
 - Microbial Indicators
 - Soil Enhancement
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- **Technology/Systems for the Measurement, Monitoring and Verification of Carbon Emissions**
 - Design of Databases
 - Available Data bases
 - Updating DOE's Greenhouse Gas Registry
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 - Links to Commercial Mechanisms
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- **Ocean Sequestration**
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- **Advanced Conversion Concepts**
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 - Case Studies
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- **Risk Assessment**
- **Potential Commercial Mechanisms to Support Reduction of Carbon Intensity**
 - International Experience
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 - Options for Fossil Fuel Use
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- **Policy Issues**
 - Government Drivers vs. Market Forces
 - Regulatory Framework
 - Reporting and Verification
 - Certification: 1605(b)
- **Education and Outreach**
- **Public Acceptance**

Guidelines for Abstracts: Submit a 100 word abstract via e-mail including: Paper Title, Author/Co-Author, Name of Paper Presenter and Affiliation, Title, Address, Phone, Fax and e-mail address for each individual. *Progress in Technology Development, Field Experience, Innovation and New Information and Approaches is what we will be looking for!!*

Abstracts Due: Feb. 7, 2003; **Acceptance Notification:** Feb. 21, 2003

NOTE: *Full papers are required. Presentations time will be limited to 20 minutes. The full paper must be submitted as an Acrobat PDF file and will be included in an electronic proceedings (CD and web available).*

ALL OVERHEADS/VIEWGRAPHS MUST BE IN POWERPOINT — NO EXCEPTIONS

Email Abstracts To: CARBONSQ@EXCHANGEMONITOR.COM

GEQ 004797

CEQ 7 GRC

SECOND ANNUAL CONFERENCE ON CARBON SEQUESTRATION

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National Energy Technology
Laboratory
U.S. Dept. of Energy

Robert Beck
National Coal Council

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USDOE, Environ. Sys., Fossil Energy

Jacqueline F. Bird
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BP Group Environmental Technology

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Developing & Validating the Technology Base to Reduce Carbon Intensity

May 5 - 8, 2003
Hilton Alexandria Mark Center
Alexandria, VA

Dear Colleague:

The U.S. Department of Energy together with other federal agencies, including the Departments of Commerce, Agriculture and the Environmental Protection Agency, is working intensively in a variety of areas to meet President George W. Bush's goal of achieving an "18 percent reduction in greenhouse gases in the next ten years...while sustaining economic growth." One field of endeavor that can provide a pathway to achieving this goal and be a bridge to a new energy economy is carbon sequestration. The President recognized this in announcing his climate change initiative. This is the focus of this conference. Starting in 2003 as an annual event, and building on DOE's National Energy Technology Laboratory 2001 conference which drew over 450 participants, it will focus on the "innovation" and science and technological advances the President has called for to make carbon sequestration a practicable and commercially deployable technology to address his carbon intensity reduction goal.

If you:

- Conduct R&D in this area;
- Work for a company that relies on utilizing carbon-based products which result in greenhouse gas emissions;
- Are developing technologies to utilize natural or already existing resources that could reduce atmospheric carbon emissions, and
- Have an innovative approach or technology to share...

you should consider presenting a paper. Or, if you are interested in getting involved in this critical national program, at the minimum, participating. **Invited speakers will include key decisionmakers from within DOE, involved key federal agencies and the leading innovators in the field.**

*If you are going to submit a paper, keep in mind the President's words—
"technological innovation"—that's what we will be looking for in reviewing
your abstract.*

Sponsored by...



NETL
NATIONAL ENERGY TECHNOLOGY LABORATORY

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SECOND ANNUAL CONFERENCE ON CARBON SEQUESTRATION

Developing & Validating the Technology Base to Reduce Carbon Intensity

May 5 – 8, 2003
Hilton Alexandria Mark Center
Alexandria, VA

The 2003 Conference will:

- Provide a **comprehensive update on U.S. governmental agency programs** and specific projects plus upcoming government initiatives to support the development of carbon sequestration technologies and processes;
- Allow for an open forum on the role of carbon sequestration in the overall **international effort to reduce greenhouse gas emissions**;
- Include presentations on ongoing **private sector initiatives**;
- Provide an **opportunity to discuss with government decisionmakers the barriers** to further development and/or deployment of carbon sequestration systems;
- Facilitate an exchange of **information on ongoing R&D and lessons-learned from field demonstrations on the latest advances** in carbon sequestration technologies approaches;
- Provide open forum on the **framework necessary to promote the private sector investment** in the development and deployment of carbon sequestration technologies;
- Allow for **international exchange of experience and potential approaches** to utilize carbon sequestration;
- Provide an overview of **various co-benefits** of carbon sequestration approaches.

Sponsored by...



ACCOMMODATIONS

The rate for Conference attendees at the Hilton Alexandria Mark Center is \$179.00 for single or double occupancy plus applicable city and state taxes. A number of rooms are available for government employees at the \$150.00 government per-diem rate. To qualify for this special rate, you must have a government identification card.

To guarantee a reservation, call the Hilton Alexandria Mark Center at 703-845-1010 by April 5. Identify yourself as a Carbon Conference Participant. If space is available, the above rates will apply for attendees two days prior and two days after our program dates. We recommend getting your reservations prior to April 5 to assure a place.

GROUND TRANSPORTATION

From Regan National Airport: The Hilton Alexandria Mark Center provides complimentary transportation to and from National Airport every hour (6 a.m. to 11 p.m.) A private taxi is also a reasonable choice.

From Baltimore Airport: Call Super Shuttle and make reservations for the most economical rate. **From Dulles Airport:** Taxi will be around \$50.00. Other means are available— see the Airport info desk.

Garage parking is available to hotel guests for \$6.00/day. Non-guests: \$3.00/hr up to \$11.00 maximum per day.

SECOND ANNUAL CONFERENCE ON CARBON SEQUESTRATION

*Developing & Validating the Technology
Base to Reduce Carbon Intensity*

HILTON ALEXANDRIA MARK CENTER

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Address _____ Mail Code _____

City _____

State _____ Zip _____

Phone _____ Fax _____

E-mail address _____

_____ Check is enclosed.

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See WWW.CARBONSQ.COM FOR UPDATES

AN OPPORTUNITY FOR VENDORS...

**Showcase Your Company's Services, Products, and Technologies by joining the
2003 Carbon Sequestration Technology Exhibit**

The *First Carbon Sequestration Technology Conference* attracted over 400 participants from key federal agencies including DOE, EPA and USDA, industry and small business operators. They represented organizations involved in developing technologies and services and those looking for ways to address their emission problems.

● **IT'S FIRST COME, FIRST SERVE—LIMITED TO ONLY 35 EXHIBITORS** ●

Participation: Conference exhibitors will be limited to no more than 35 companies who offer products and services. The number of vendors is being limited to ensure attendees have adequate time to acquaint themselves with each vendor's products.

Dates and Times: The Exhibit schedule will revolve around many of the catered functions and will provide ample opportunities for one-on-one discussions with Conference participants.

What to Do: Reserve space now for the Exhibit by faxing the form below. For more information contact the Conference Coordination Office at: 202-296-2814 ext. 27

Costs: All Fees Include One Complimentary Registration to the Workshop (\$795 Value).

| | SMALL COMPANIES
(Fifteen or Fewer Employees) | MEDIUM TO LARGE COMPANIES
(More than 15 Employees) |
|---------|--|--|
| Exhibit | \$ 1495 | \$1,850 |

RESERVATION FORM

Please reserve space for my company

(Indicate method of payment on Registration Form)

Reserve Space NOW!
Fax this form and Conference
Registration form to:
202-296-2805

Name _____

Title/Position _____

Company/Affiliation _____

Address _____ Mail Code _____

City _____ State _____ Zip _____

Phone _____ Fax _____

We will exhibit on the following products(s) and/or service(s):

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 - Certification 1605(b)
- **Education and Outreach**
- **Public Acceptance**

Guidelines for Abstracts: Submit a 100 word abstract via e-mail including: Paper Title, Author/Co-Authors, Name of Paper Presenter and Affiliation, Title, Address, Phone, Fax and e-mail address for each individual. *Progress in Technology Development, Field Experience, Innovation and New Information and Approaches is what we will be looking for!!*

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Email Abstracts To: CARBONSQ@EXCHANGEMONITOR.COM

CEQ 7 GRC

U.S. Climate Change Science Program



1717 Pennsylvania Ave, NW, Suite 250, Washington, DC 20006. Tel: +1 202 223 6262

3 December 2002

Dear Colleague,

Welcome and thank you for participating in the U.S. Climate Change Science Program Planning Workshop for Scientists and Stakeholders. The purpose of the Workshop is to provide a comprehensive review of the discussion draft of the Strategic Plan for U.S. climate change and global change research. When finalized by April 2003, the Strategic Plan will provide the principal guidance for U.S. climate change and global change research during the next several years, subject to revisions as appropriate to respond to newly developed information.

We welcome your comments on the discussion draft, both verbally during the workshop, and in written form during the month following the workshop. Comments on all elements of the plan from all communities are essential in order to improve the plan and identify gaps. In your review, we ask you to provide a perspective on the content, implications, and challenges outlined in the plan as well as suggestions for any alternate approaches you wish to have considered, and the types of climate and global change information required by policy makers and resource managers. We also ask that you comment on any inconsistencies within or across chapters, and omissions of important topics. For any shortcomings that you note in the draft, please propose specific remedies. To participate in the review it is not necessary that you review the entire plan.

Your verbal comments during the workshop will be noted by the rapporteurs during each session and be made part of the workshop documentation. We also ask that you confirm or expand your verbal comments in writing after the workshop and submit them by E-mail to <comments@climatescience.gov>. All comments submitted by 13 January 2003 will be posted on the <<http://www.climatescience.gov>> website for public review. While we are unable to promise detailed responses to individual comments, we confirm that all submitted comments will be given consideration during the development of the final version of the Strategic Plan.

Attached to this letter are instructions and format guidelines for submitting review comments. Following the instructions will ensure that your comments are properly processed and given appropriate consideration. If you wish to distribute copies of the plan to colleagues to participate in the review, please provide them with a copy of this letter as well as the attached instructions and format guidelines. We have posted the plan on the workshop website at <<http://www.climatescience.gov>>. PDF files for individual chapters of the plan can be downloaded from this site. If you have any questions, please contact: Sandy MacCracken at 1-202-419-3483 (voice), 1-202-223-3065 (fax), or via the address in the footer below.

We appreciate your contribution of time and expertise to this review, and look forward to your response.

Sincerely,

James R. Mahoney, Ph.D.
Assistant Secretary of Commerce for Oceans and Atmosphere,
Director, U.S. Climate Change Science Program

Tel: +1-202-419-3483
Fax: +1-202-223-3065
E-Mail: comments@climatescience.gov

get ~~posted~~ remarks of Admin. for files.

Instructions For Submission of Strategic Plan Review Comments

Thank you for participating in the review process. Please follow the instructions for preparing and submitting your review. Using the format guidance described below will facilitate our processing of reviewer comments and assure that your comments are given appropriate consideration. An example of the format is also provided. Comments are due by **13 January, 2003**.

- Select the chapter(s) or sections of chapters which you wish to review. It is not necessary that you review the entire plan. In your comments, please consider the following issues:
 - **Overview:** overview on the content, implications, and challenges outlined in the plan;
 - **Agreement/Disagreement:** areas of agreement and disagreement, as appropriate;
 - **Suggestions:** suggestions for alternative approaches, if appropriate;
 - **Inconsistencies:** inconsistencies within or across chapters;
 - **Omissions:** omissions of important topics;
 - **Remedies:** specific remedies for identified shortcomings of the draft plan;
 - **Stakeholder climate information:** type of climate and global change information required by representative groups;
 - **Other:** other comments not covered above.
- Please do not comment on grammar, spelling, or punctuation. Professional copy editing will correct deficiencies in these areas for the final draft.
- Use the format guidance that follows for organizing your comments.
- Submit your comments by email to <comments@climatescience.gov> by **13 January, 2003**.

Format Guidance for Comments

Please provide background information about yourself on the first page of your comments: your name(s), organization(s), area of expertise(s), mailing address(es), telephone and fax numbers, and email address(es).

- Overview comments on the chapter should follow your background information and should be numbered.
- Comments that are specific to particular pages, paragraphs or lines of the chapter should follow your overview comments and should identify the page and line numbers to which they apply.
- Comments that refer to a table or figure should identify the table or figure number. In the case of tables, please also identify the row and column to which the comment refers.
- Order your comments sequentially by page and line number.
- At the end of each comment, please insert your name and affiliation.

Format Example for Comments

I. Background Information

Name(s): John Doe
Organization(s): University College
Mailing Address(es): 101 1st Street, New York, New York, 10001
Phone(s): 800-555-5555
Fax(es): 800-555-6666
E-mail(s): John.Doe@univ.edu
Area of Expertise: Atmospheric Composition

II. Overview Comments on Chapter 5: Atmospheric Composition

First Overview Comment: (Comment)
Reviewer's name, affiliation: John Doe, University College

Second Overview Comment: (Comment)
Reviewer's name, affiliation: John Doe, University College

III. Specific Comments on Chapter 5: Atmospheric Composition

Page 57, Line 5: (Comment)
John Doe, University College

Page 58, Line 32 - Page 59, Line 5: (Comment)
John Doe, University College

Table 1-4, Row 3, Column 6: (Comment)
John Doe, University College

Please send comments by email to <comments@climatescience.gov>

Structure of the Workshop

The Climate Change Science Program (CCSP) workshop, held December 3-5, 2002 at the Marriott Wardman Park Hotel, Washington, D.C., is structured around a combination of plenary sessions and breakout groups.

Keynote Plenary Addresses:

Invited keynote addresses by national and international government and science leaders will be presented in plenary sessions each day during the workshop.

Breakout Groups:

There are four Breakout Groups during the three days of the workshop. Breakout Groups 1-3 will focus on specific elements of the Strategic Plan, and Breakout Group 4 will focus on crosscutting issues across the plan. Within each Breakout Group there are six concurrent sessions, each focusing on different topics of the Strategic Plan. One breakout session, Climate Variability and Change, is duplicated due to interest by a large number of participants.

Most of the Breakout Sessions will be conducted with the format outlined below. Some of the breakout sessions will have a slightly modified format, to accommodate their specific design. The basic format will include:

- Call to order and opening comments by the moderator;
- Overview presentation of the topic (usually by a principal author of the chapter) based on the relevant chapter in the draft Strategic Plan;
- Comments by volunteer and invited panelists chosen to represent a wide diversity of views from the scientific, technological, environmental, and stakeholder communities. These named panelists will comment, question, challenge, and/or provide suggestions for alternate approaches to developing the information and analyses desired by the various communities;
- Open comments and questions from the floor directed to a panel composed of the original presenter and the named panelists;
- Two rapporteurs will document the comments and questions in each session.

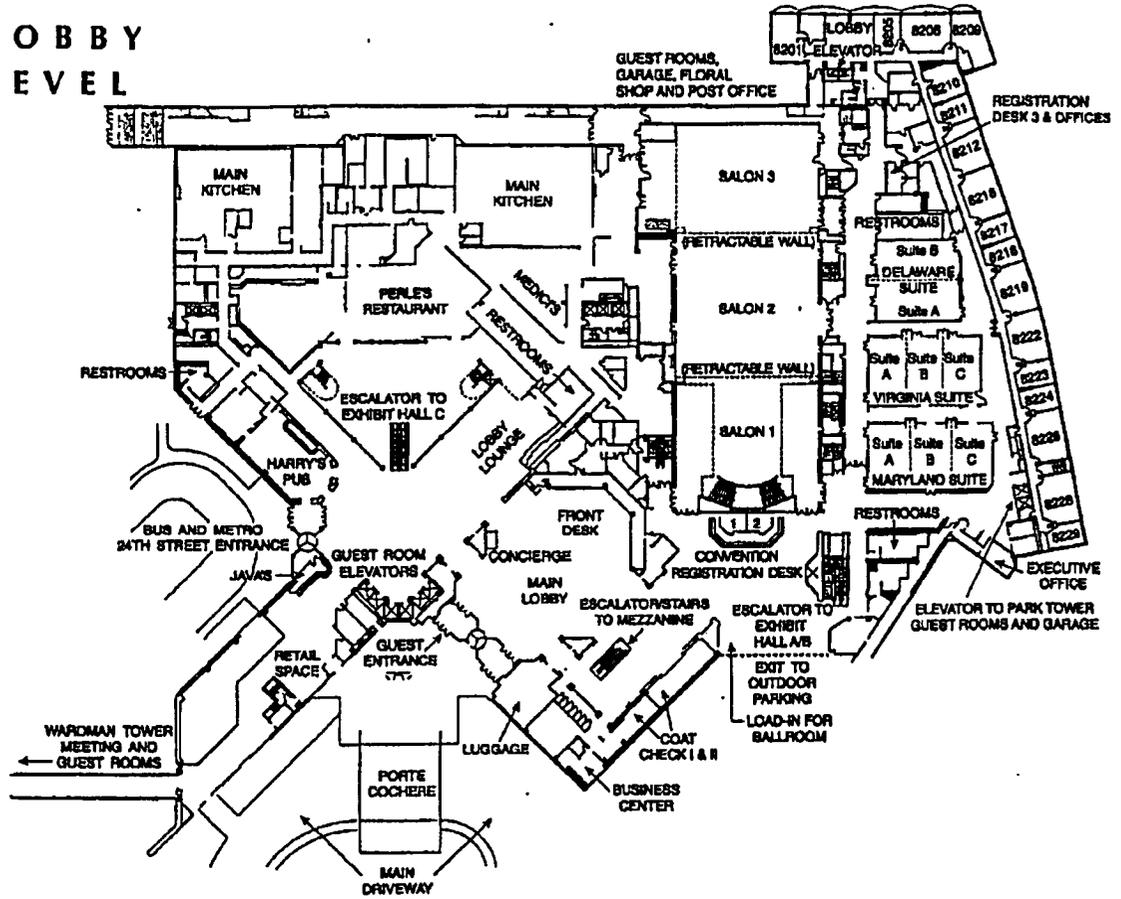
Review Plenary Sessions:

The moderator and rapporteurs will prepare a brief summary of the key issues discussed during each breakout session, and the moderator will present this summary of key issues in a subsequent plenary session. The moderator and rapporteurs will also be responsible for preparation of a more complete written record of each breakout group, for posting on the www.climatescience.gov web site.

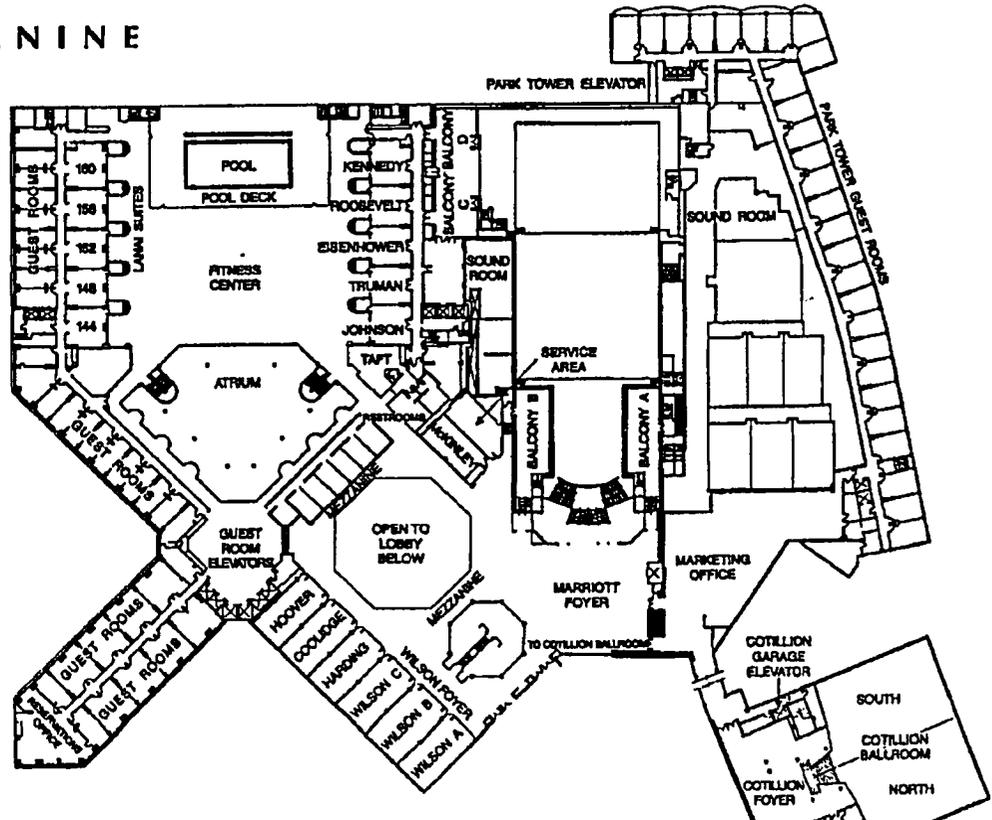
Closing Plenary Session:

The workshop will conclude with an invited panel presentation of feedback and lessons learned during the workshop, a summary of key workshop findings (including areas of agreement and disagreement), and a description of the process for integrating workshop feedback into the revised research plan, and for subsequent reporting of findings.

LOBBY LEVEL



MEZZANINE LEVEL



0534_f_vs15g003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: David Dokken <ddokken@usgcrp.gov> (David Dokken <ddokken@usgcrp.gov> [UNKNOWN])

CREATION DATE/TIME: 5-MAY-2003 13:58:03.00

SUBJECT:: CCSP Strategic Plan Mini-Retreat: POSTPONED

TO: ccsp@usgcrp.gov (ccsp@usgcrp.gov [UNKNOWN])
READ: UNKNOWN

CC: scheraga.joel@epa.gov (scheraga.joel@epa.gov [UNKNOWN])
READ: UNKNOWN

CC: ccsp_info@usgcrp.gov (ccsp_info@usgcrp.gov [UNKNOWN])
READ: UNKNOWN

BCC: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])
READ: UNKNOWN

TEXT:

TO: CCSP Principals

FROM: Dave Dokken, CCSP Coordination Office

Please be advised that the CCSP Strategic Plan mini-retreat scheduled for the afternoon of 13 May 2003 has been postponed. A revised near-term schedule is under preparation.

003310



**EDISON ELECTRIC
INSTITUTE**

May 6, 2003

The Honorable Robert G. Card
Under Secretary of Energy
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Re: Further Comments on Key Policy Issues in Reporting Reforms under Energy Policy Act Section 1605(b)

Dear Mr. Card:

On behalf of the Electric Power Industry Climate Initiative (EPICI),¹ I would first like to express our appreciation for the opportunity to meet with you and other Department of Energy (DOE) officials on April 1, 2003. As you know, EPICI has a critical interest in the DOE revision of the Energy Policy Act (EPAct) section 1605(b) guidelines and the enhancement of the Energy Information Administration (EIA) data base and registry.

The primary purposes of the March 5, 2003, position papers that EPICI filed with DOE were twofold:

- To make it abundantly clear that the ability of the power sector to meet the goals that it expressed in its climate action plans to DOE Secretary Spencer Abraham (prior to the February 12, 2003, roll out of the voluntary Power PartnersSM programs) is directly linked to the design of the reporting reforms embodied in the revised guidelines and improved registry.
- To highlight and clarify our positions on several policy issues that need to be resolved in order to support the power sector's voluntary goals and programs, including dissuading the government from narrowing the existing reporting guidelines to provide for entity-wide reporting only and limiting such reporting to the U.S. only.

¹ EPICI consists of the American Public Power Association, Edison Electric Institute, Electric Power Supply Association, Large Public Power Council, National Rural Electric Cooperative Association, Nuclear Energy Institute and Tennessee Valley Authority.

The purposes of this letter, which EPICI requests that DOE place in the public docket of the 1605(b) revision proceeding, are to 1) amplify on several key policy issues covered in our March 5 papers and discussed with you on April 1 and 2) provide you with some concrete examples of how reporting would work under alternative greenhouse gas (GHG) accounting approaches.

I. A "One-Size-Fits-All" Approach To Defining The Reporting Entity Is Impractical.

One of the critical issues in revising the guidelines is the question of how to characterize or define what is an "entity" for reporting purposes. We are not familiar with alternative characterizations that might already exist in places such as the Internal Revenue Service (IRS), so it is difficult for us to ascertain whether any of them would be useful, workable and adequate in the context of the revised section 1605(b) guidelines.

However, in discussions with Department of Treasury officials a few days ago, we learned that some have suggested use of the employer identification number (EIN) as a way to define entities. That approach strikes us as raising more problems than it solves. One involves the issue of confidentiality of identification numbers, since some persons have Social Security numbers for EIN purposes with the IRS. Those could not be disclosed. In addition, in the case of public access of the data, it would be difficult for members of the public to determine the identity of the numbered entity without some system for correlating the EIN with the name of the entity. There are probably a host of other difficulties as well.

What is important is that any proposed definition or characterization takes into consideration and ultimately accommodates the various differences and potential uniqueness of the facilities, operations and business and relevant practices of the reporters that may be expected to participate in the registry. EPICI's "Entity-wide Reporting" paper of June 5, 2002 – which was filed with DOE and is enclosed for your convenience – addresses many of the issues discussed on April 1 as well as your question about "What doesn't fit?". The paper discusses structural, operational and adjustment issues, as well as several sub-issues. We question the need for a definition of either the term "entity" or "person," so long as such terms include reporters from both the private and public sectors.²

² EPA Act section 1605(b) expressly refers not only to "entities," but also to "reporting entity" and "Persons," as well as "sources," "plant" and "facility" without defining any of those terms. The only relevant provision that is akin to a definition is found in the current 1605(b) guidelines, which state that a reporter "must be a legal U.S. entity, that is, any U.S. citizen or resident alien; any company, organization, or group incorporated under or recognized by U.S. law; or any U.S. Federal, state, or local government entity."

strawman:
"legally
distinct
business,
institution,
organization, or
household"
w/ highest level
of aggregation

Furthermore, a one-size-fits-all approach to defining reporting entity would be inconsistent with the manner in which, for example, many power generators and utilities are legally structured. AES, one of the world's largest independent power producers, is a prime example: each of its generation plants is a separate legal entity, and the company is completely decentralized from an operational standpoint. There are numerous other examples of utilities that due to unbundling or restructuring, are disaggregated into separate legal entities, or where a single legal entity owns a group of plants.

*Jim:
distinctly
defined
no overlap*

EPICI urges the government to propose a "building block" approach to these terms: that is, allow the reporter to check one or more appropriate boxes, such as association (as an aggregator for small municipalities or small rural electric cooperatives), holding company, operational company, plant, facility, person, or "other ____". This check-the-boxes approach is consistent with a robust reporting system. See "EPICI Positions on Key Policy Issues in Revising EPart Section 1605(b) DOE Guidelines and EIA Registry" (hereinafter referred to as "EPICI Positions Paper"), March 5, 2003, pp. 5-8. Transparency, such as by the building-block approach to defining reporting entity that would include an explanation by the reporter of the basis for the choice of a box, is a key to making a robust reporting system work.

Finally, it is worth noting that even using a broad definition of entity will not eliminate the need for project-level reporting. For example, electricity generators could undertake a project to improve the efficiency of a fossil generating unit, or switch fuel use at a unit from coal to gas. Reporting such an activity at the "entity" level would require that the generating unit be its own entity. In reality, most if not all of the generating units in the industry are not structured this way. It is more common to find a single utility directly owning numerous generating units. As a result, most generators would need to be able to report at a project level in order to receive credit for such a project.

II. The Purpose Of 1605(b) Is Not To Establish An Inventory Through Entity-wide Reporting.

The EPICI position on this issue, summarized in the March 5 "EPICI Positions Paper," is that section 1605(b) is not directed at the establishment of an inventory through entity-wide reporting. That is a role that EIA plays under EPart section 1605(a). Further, because the last sentence of section 1605(a) provides that the subsection "does not provide any new data collection authority," the aforementioned EIA inventory is based on estimates, not collected emissions. Our views on this issue are further highlighted in the enclosed excerpt from the March 5 "EPICI Positions Paper."

General Guidelines, p. 3. However, we do not understand that statement to be a definition of the term "entity" or "person."

III. Entity-wide Reporting (on an Absolute and Intensity Basis) and Project-based Reporting

Regardless of whether an entity or person chooses to report on an entity-wide basis, a project basis, or both, it should have the flexibility to report either a modified baseline or a historic baseline. In the EPICI "Transferable Credits For Voluntary Reductions In GHG Emissions Intensity" paper, June 5, 2002, pp. 8-9, EPICI commented to DOE that since the baseline is the starting point for measuring GHG emissions reductions that would qualify as a transferable credit, the guidelines for reporting transferable credits should allow flexibility for the establishment of one or more baselines, static or dynamic, provided that a prescribed methodology is followed for each baseline selected.

In addition, flexibility in the selection of baselines would support the Administration's policy goal of achieving reductions in GHG emissions intensity through voluntary actions. It also would maximize the extent of voluntary participation in the reporting of GHG emissions reduction actions. Finally, flexibility in the selection of a baseline also would facilitate efforts to provide credit for past actions.

In the examples below, we demonstrate: 1) the differences among project-based reporting, entity-wide reporting on an absolute tons basis, and entity-wide reporting on an intensity basis; and 2) the need for project-based reporting.

Comparison of Entity-wide and Project-based Reporting for a Hypothetical Utility

Consider a hypothetical utility. In 2002, this utility had 1800 MW of coal, 2400 MW of nuclear, and 350 MW of gas combustion turbine generation capacity. In that year:

- Total generation was 32.6 TWH,
- Total carbon emissions were 12.3 million metric tons, and
- The carbon emissions intensity was .38 metric tons per MWH

By 2012, the utility will add 500 MW of natural gas combined cycle capacity, reduce the heat rate of its coal units, and institute a peak-shaving demand-side management (DSM) project. The generation projects would add a total of 10% to generation, with a net increase of 9.6% after the reduction in demand from the DSM project.

In 2012:

- Total generation will be 35.7 TWH,
- Total carbon emissions will be 13.6 million metric tons, and
- The carbon emissions intensity will still be .38 metric tons per MWH.

*Strawman:
Project ok so long
as entity-wide*

Entity-wide, Absolute Emissions Approach. Under an approach where transferable credits could only be earned for absolute reductions in entity-wide emissions, this utility would receive no credits in 2012, because it is a growing utility, and its emissions have grown by 1.3 million metric tons, from 12.3 to 13.6 million metric tons, or about 10%.

Entity-wide, Emissions Intensity/Emissions Rate Approach. Under an approach where transferable credits also could be earned for reductions in the entity-wide emissions intensity or emissions rate, this utility still would receive no credit in 2012, because its emissions rate has remained constant at .38 metric tons per MWH.

Project-based Approach. However, in examining this utility's actions more closely, one sees that it has provided real emissions reductions. As a result, it would need to be able to report at a project level in order to receive credit for the two actions that do make such contributions. In the examples below, we demonstrate why the actions do make real reductions, and quantify the project benefits that should receive transferable credit.

Example 1 – Heat rate improvement project: By 2012, this hypothetical utility will have improved the heat rate of its coal units by 1 percent. As a result, the electricity produced by those units will result in 1 percent fewer carbon emissions than would be the case without this project. Assuming that these coal units produce about 12.6 TWH, this project would result in real reductions of about 117,000 metric tons of carbon. Without a project-based approach, this utility would not get any transferable credit for this activity, even though it provided real reductions.

Example 2 – DSM project: By 2012, this utility also will have initiated a peak-shaving DSM program, resulting in a reduction in the capacity factor of the gas combustion turbines from 35% to 30%. Assuming that about 150 GWH of combustion turbine generation is avoided, without any compensating increase in any other generation, about 89,000 metric tons of carbon have not been emitted as a result of this project. Once again, this utility has taken action that resulted in real reductions that would contribute to achieving the national goal, but could not receive transferable credit without project-based reporting.

As a result of these two projects, this utility has reduced its emissions more than 200,000 metric tons below what it would have been without the projects. It should be able to receive transferable credits for this contribution.

These examples, which are typical of the types of on-system voluntary actions likely to be undertaken by the electric power industry as part of Power PartnersSM, illustrate three important conclusions relevant to the design of the revised 1605(b) reporting guidelines:

1. Identification of real emission reductions requires project-based reporting.
2. Entity-wide reporting alone will mask the reductions achieved through individual voluntary projects, primarily due to the effects of load growth.
3. The addition of entity-wide reporting does not provide additional corroboration, or otherwise add value, to project-based reports, because the entity-wide report will reflect the net effect of multiple actions, and cannot be easily correlated with the project-based report.

The examples associated with our hypothetical utility are plausible and are not extreme. We could show decreasing entity-wide intensity, *e.g.*, by adding a nuclear upgrade. Alternatively, without the DSM project in our hypothetical case, intensity would probably increase. Thus, credit for project-based actions is critical even in cases where entity-wide intensity does not decrease. Although our hypothetical case shows intensity essentially unchanged, we expect that the voluntary initiatives will result in declining industry-wide intensity, especially when considering the full range of on-system and off-system actions.

It should be recognized that these are examples of on-system projects for which we seek recognition of their reductions. These are in addition to off-system domestic projects and international projects, such as those involving sequestration. Like the current guidelines, the revised guidelines should continue to give recognition to these off-system project reductions, independent of the resolution of the entity-wide reporting issue.

We also emphasize that when the President used the term "real emission reductions" in the context of transferable credits, we believe that he did not intend to convey the view that this meant only absolute tonnage reductions. Rather, we presume that he intended that term to be applied in the context of his GHG intensity policy, which we understand to mean real reductions in intensity or tons.

IV. Conclusion

The EPICI March 5 position papers and these further comments are intended in large part to dissuade the government from narrowing the existing reporting guidelines to provide for entity-wide reporting only and limit such reporting to the U.S. only (whether for the purpose of receiving credit or for other reasons). The core principles of multiple purposes, flexibility, participation and practicality argue for project-based reporting by an entity or person. EPICI has strongly endorsed the need for flexibility in the revised guidelines and participation in the enhanced registry, and we will not repeat those arguments here. There is a practical need for project-based reporting that is due in part to the complexities of entity-wide reporting.

EPICI would oppose a narrow regime that focused on entity-wide reporting solely for the purposes of obtaining transferable credit. Such a reporting program would severely

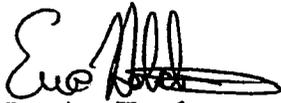
discourage participation and thus seriously harm – if not cripple – the voluntary Power PartnersSM programs that are so inextricably linked to the 1605(b) program, as recognized by the President in his remarks of February 14, 2002. Moreover, as we discussed on April 1, the improved registry and 1605(b) reports should serve multiple purposes. At the election of the reporter, these may include: the recordation of transferable credit, baseline protection and credit for past actions; documentation of an entity or person's progress toward Climate VISION program goals; registration of research and development actions; public relations material and releases and annual reports; information to shareholders and the Securities and Exchange Commission; reports to state regulatory commissions and other regional and state governmental bodies; and reports to the Federal Energy Regulatory Commission and other federal governmental bodies.

The statute provides that the guidelines “establish procedures for the accurate voluntary reporting of information.” Because reporting is voluntary, the reporter should be able to choose not only whether that entity or person should elect to report at all, but also the extent of the information to be reported, so long as it is accurate. There is an “all or nothing” connotation in the use of the term “entity-wide” reporting that is contemplated by neither the plain words of the statute nor the Congress.

What is important and significant is the purpose of the participation intended by the person or entity. If the purpose is to obtain transferable credits or baseline protection, the reporting under the revised guidelines may need to be more rigorous in the criteria to be applied for such credits and protection, although those criteria should not, and need not, be dependent on entity-wide reporting, and should not result in a paperwork burden. As to the other purposes for volunteers to report, the criteria could be less rigorous while also being a significant improvement in accuracy, reliability and verifiability over the current guidelines.

We appreciate the opportunity to provide these additional comments.

Sincerely,


for Lee Ann Kozak
Co-chair, Accounting and Reporting Committee
Electric Power Industry Climate Initiative

Enclosures
WLF:hm

Q: what's the baseline?
intensity metric should handle

Q: what kind of a screen for past actions
for credits? baseline?

→ allow past reports to be
put through same test

Q: how to treat international projects?
↳ ok as projects if entity-wide?

Q: indirect emissions from purchases
↳ use power pool average mix?

CEQ 004818?

The Honorable Robert G. Card
May 6, 2003
Page 8

cc (w/ encls):

Hon. Vicki A. Bailey, Assistant Secretary,
DOE Office of Policy and International Affairs

Margot Anderson, Deputy Assistant Secretary,
DOE Office of Policy

Larisa Dobriansky, Esq., Deputy Assistant Secretary,
DOE Office of Policy and International Affairs

Dr. Richard A. Bradley, Chief Advisor for Global Change,
DOE Office of Policy and International Affairs

Jean E. Vernet, Esq.,
DOE Office of Policy and International Affairs
Office of Electricity and Natural Gas Analysis
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0552_f_ljp7g003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 7-MAY-2003 07:57:38.00

SUBJECT:: weather news has its politics, too

TO:robert.hopkins@noaa.gov @ inet (robert.hopkins@noaa.gov @ inet [UNKNOWN])
READ:UNKNOWN

TO:rbonjean@doc.gov @ inet (rbonjean@doc.gov @ inet [UNKNOWN])
READ:UNKNOWN

TO:Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP@EOP [CEQ])
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TO:Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP@EOP [CEQ])
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TO:James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])
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BCC:Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP [CEQ])
READ:UNKNOWN

TEXT:

weather news has its politics, too
Jennifer Harper
THE WASHINGTON TIMES
Published May 6, 2003

yyyyyThe daily TV weather forecast may not be neutral territory.
yyyyyPersonal beliefs influence what a television weathercaster reports
about "politically charged environmental issues such as global warming,"
according to a study released April 11 by the University of Texas at
Austin.

yyyyy"Research showed that personal perspectives * not years of
experience, market size, newscast position, science degrees and seals of
approval from accrediting organizations * shape weathercasters' views
about climate change," the study stated.

yyyyyJournalism professor Kris Wilson, a former TV weather forecaster,
polled 217 TV weathercasters and concluded that many tiptoe around global
warming and that some are forbidden to bring it up on the air.

yyyyy"I had one weathercaster tell me his bosses thought it was a 'Clinton
propaganda tool,' " Mr. Wilson said yesterday. "On the other hand, there
can be pressure from the businesspeople who don't want the weather
forecast mixed up in some wacky environmentalist thing."

Page 1

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yyyyyyHis study is "not an indictment of weathercasters."

yyyyyy"But you can't filter the politics or the personal perspectives out of a subject like climate change. I'm concerned the public is not getting available facts," Mr. Wilson said.

yyyyyyThe study challenges the "assumption that those trained in science are apolitical," he continued, adding that journalistic objectivity could be compromised.

yyyyyy"There's no gag order here on global warming," said Ray Ban, executive vice president of the weather Channel. "There's a lot of debate in the community about it and if climate change is caused by natural or human influences. We don't know all the answers yet."

yyyyyy Beginning in July, however, the weather Channel will add a "climate expert" to its roster of specialized weathercasters who advise on severe, winter or tropical weather patterns.

yyyyyy"We're trying to make climate issues on par with weather issues and tell the public what we know, what we don't know and the discussions at hand," Mr. Ban said.

yyyyyyThe American Meteorological Society, which certifies TV weathercasters, periodically weighs in on the discussion. The group issued a statement earlier this year that acknowledges that the Earth's temperature rose in the past 200 years and that greenhouse gases had also increased. The group called for more research to determine whether the cause was natural or man-made.

yyyyyy Kevin Lavin, executive director of the National Weather Association, calls climate change complex and contentious, and advises the public to monitor initiatives at the U.S. Climate Change Science Program Web site (www.climatechange.gov).

yyyyyyHe also advised Mr. Wilson, a professor at the University of Texas, to repeat his survey in a few years.

yyyyyy"I would bet his findings would indicate greater understanding, knowledge and consensus among weathercasters," Mr. Lavin said. "We should also keep in mind that most weathercasters are not given the on-air time to explain complex issues such as climate change, and the trend in some areas is to reduce that on-air time. This trend will not give weathercasters incentive to study issues they can't present."

yyyyyyThe study, meanwhile, found weathercasters to be fairly skeptical but a little shaky on science. Twenty-two percent said they think global warming "was an accepted theory by most atmospheric scientists." Fifty-eight percent said they think it is debated by the scientists. Forty-four percent said they think the greenhouse effect is a "scientific certainty."

yyyyyySeventy-five percent said they think climate change is a "serious environmental issue," and 70 percent said they think the Earth's temperature had increased. But 13 percent could identify a range for this increase, and, using a computer model, 33 percent correctly identified the influence of global cloud cover and precipitation on greenhouse gases.

yyyyyy"This is basic meteorology, yet apparently misunderstood by two-thirds of these TV weathercasters," the study noted.

yyyyyy□□ Contact Jennifer Harper at jharper@washingtontimes.com or 202/636-3085.

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Return to the article



"Watson, Harlan L (OES)" <WatsonHL@state.gov>
05/07/2002 06:21:21 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP

cc:

Subject: U.S.-India Joint Statement on Climate Change: Statement on the Visit of Mr. Harlan Watson, U.S. Climate Change Negotiator and Special Representative

Phil,

Got India started--hope to bag the Chinese before too much longer.

Harlan

> <http://www.state.gov/g/oes/rls/prsr/press/jan/9964.htm>

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U.S.-India Joint Statement on Climate Change: Statement on the Visit of Mr. Harlan Watson, U.S. Climate Change Negotiator and Special Representative



*Released by the U.S. Embassy, New Delhi
May 6, 2002*

Mr. Harlan Watson, U.S. Senior Climate Change Negotiator and Special Representative visited New Delhi on April 29-30, 2002. He called on Minister of Power, Mr. Suresh Prabhu, and Secretary, Ministry of Environment and Forests, and met senior officials from Ministries of Environment and Forests, Power, Petroleum and Natural Gas, Non-Conventional Energy Sources and External Affairs.

Mr. Watson explained the climate change policy announced by President Bush on February 14, the steps that the United States is taking to achieve its national goals for mitigating projected greenhouse gas emissions over the next decade and its approach towards international cooperation on climate change issues. The Government of India reiterated its commitment to the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC) on the basis of common but differentiated responsibilities and respective capabilities of Parties in addressing climate change. The Government of India further conveyed its plans to host the 8th Conference of the Parties to the United Nations Framework Convention on Climate Change in New Delhi from October 23-November 1, 2002, and that it has initiated steps to ratify the Kyoto Protocol.

The U.S and India agreed that they would continue to work together in the spirit of cooperation and partnership under the UNFCCC. In this context, the two sides announced their intention to enhance ongoing collaborative projects in clean and renewable sources of energy, energy efficiency and energy conservation. India also suggested acceleration of support in fuel cells, photovoltaic technology, weather early warning systems and climate modeling, and research and technology development. They recognized that these projects would supplement the existing cooperation between the two countries in energy and environment. The two sides agreed to continue their bilateral dialogue.

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 8-MAY-2003 09:03:17.00

SUBJECT:: McCain admits climate amdmt would fail - but intends to force a vote

TO:Candida P. Wolff (CN=Candida P. Wolff/OU=OVP/O=EOP@Exchange@EOP [OVP])
READ:UNKNOWN

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:Sean B. O'Hollaren (CN=Sean B. O'Hollaren/OU=WHO/O=EOP@Exchange@EOP [WHO])
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TO:Bryan J. Hannegan (CN=Bryan J. Hannegan/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TEXT:
from today's Energy and Env Daily:

McCain concedes greenhouse gas cap-and-trade plan will fail
Darren Samuelsohn, Environment & Energy Daily senior reporter
Senate Commerce Committee Chairman John McCain (R-Ariz.) said yesterday
that legislation establishing a greenhouse gas (GHG) cap-and-trade program
has "no chance" of passing as an amendment during the comprehensive energy
bill floor debate. But the GOP maverick said he would introduce the
language anyway to force a vote on the issue.
Senate floor debate on the Energy Policy Act of 2003, S. 14, begins in
earnest today.

McCain's blunt assessment comes days after environmentalists also
acknowledged the dim prospects for his climate change approach. The
lawmaker said his amendment would mark the start of a long congressional
battle to address climate policies, likening the effort to the one that
ended last year with President Bush signing into law a campaign finance
reform bill. "Every special interest is lined up against us," McCain said
following a hearing in his panel that examined the National Academy of
Sciences' recent analysis of the state of climate change science.
At this point, it is unclear how the climate change issue will play out as
the Senate weighs a range of critical and contentious energy policy items.
Alex Flint, staff director for Senate Energy and Natural Resources
Committee Chairman Pete Domenici (R-N.M.), said earlier this week that GOP
officials view climate change as the least predictable issue on the table
this year, with several groups of senators vying behind the scenes to
build coalitions to support a range of approaches that would move the
United States toward varying degrees of action.

A Capitol Hill source yesterday said that Domenici's staff is drafting
language with Senate Environment and Public Works Committee Chairman James
Inhofe (R-Okla.). Details of the amendment were not available, but the
source acknowledged that a starting point would likely involve the climate
title that Domenici last month had included and then dropped from an early
version of the energy bill. Several conservative committee members told
Domenici that they had concerns about the way the climate change issue had
been handled at the time, driving the chairman to postpone the matter

until the floor because a consensus did not exist in the panel. The original Domenici climate change draft included provisions that Democrats said would essentially put into law President Bush's plan to cut the nation's "carbon intensity" (the ratio of GHG emissions to economic output) to 18 percent by 2012. Such an approach, the White House's critics say, is equivalent to a "business as usual" approach. But the Bush administration maintains that its approach will not ruin the economy by forcing massive fuel switching from coal to less abundant supplies of natural gas.

The Domenici draft did not require stabilization of GHG concentrations, but instead would have called on the president to develop and implement a national strategy to manage the risks posed by potential climate change. It also included a provision requiring the president to establish a database for voluntary GHG emission submissions with the understanding that any certified reductions may be applicable in the event a future reduction program is created.

By contrast, the pending McCain amendment would gradually force the U.S. electricity, transportation, industrial and commercial sectors to cut their GHG emissions to year 2000 levels by 2010, and 1990 levels by 2016. A cap-and-trade approach among the sectors would be set up for six GHGs: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.

The McCain approach was unveiled earlier this year as legislation, S. 139, with Sen. Joe Lieberman (D-Conn.), a 2004 presidential candidate, as a cosponsor. Yesterday, Lieberman gave an energy policy campaign speech that included a pledge that the nation would return to the Kyoto Protocol negotiation table if he were elected to the White House.

Also on the horizon is a climate change amendment from Senate Energy and Natural Resources Committee ranking member Jeff Bingaman (D-N.M.). The Bingaman amendment would go beyond last year's Democrat-written energy legislation by establishing a mandatory GHG emission reporting system while also setting up a White House climate change office with a future requirement to choose a level for GHG stabilization.

One environmentalist said the current Domenici-Inhofe deal brokering is being undertaken as a way to offset any Democratic criticism that Republicans are silent on climate change. Ultimately, this source said lawmakers may reach a compromise in the same vein as the final product from last year's energy bill. There, lawmakers agreed to establish a GHG emission reporting system that would be voluntary for at least five years while forcing it to become mandatory if, after the deadline passed, less than 60 percent of U.S. GHG emissions had been brought in for certification.

Lastly, Sen. Ron Wyden (D-Ore.) is expected to file a carbon sequestration amendment today that would establish a "Forest Carbon Program" under which states, forest land owners, local governments and private entities would receive federal funding to restore forestland and maintain forest conservation. Sen. Larry Craig (R-Idaho) said last week that he and Sen. Sam Brownback (R-Kan.) would cosponsor Wyden's approach.

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Sandra J. Toomey (CN=Sandra J. Toomey/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME: 8-MAY-2003 10:55:10.00

SUBJECT:: SLIGHT CHANGE IN CONFIRMED DATE FOR: Strategic Plan for Climate Change Science Briefing

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:Sherron R. white (CN=Sherron R. white/OU=OMB/O=EOP@EOP [OMB])
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TO:kueter@marshall.org @ inet (kueter@marshall.org @ inet [UNKNOWN])
READ:UNKNOWN

CC:Donna I. Coleman (CN=Donna I. Coleman/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

CC:David Halpern (CN=David Halpern/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

CC:Jobi A. Parrish (CN=Jobi A. Parrish/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

BCC:Sandra J. Toomey (CN=Sandra J. Toomey/OU=OSTP/O=EOP [OSTP])
READ:UNKNOWN

TEXT:
The Strategic Plan for Climate change Science Briefing is now scheduled for:

Wednesday, May 21 from 1:30 - 2:30 PM at the Office of Science and Technology Policy.

The Front Conference Room is reserved for the briefing.

Thank you all for your flexibility and cooperation in scheduling this briefing.

Sandy Toomey
OSTP Science Division
202-456-6130

----- Forwarded by Sandra J. Toomey/OSTP/EOP on
05/08/2003 10:45 AM -----

Sandra J. Toomey
04/22/2003 04:21:25 PM
Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP, Sherron R. white/OMB/EOP@EOP,
kueter@marshall.org @ inet
cc: Jobi A. Parrish/OSTP/EOP@EOP, David Halpern/OSTP/EOP@EOP
Subject: CONFIRMED DATE FOR: Strategic Plan for Climate Change
Science Briefing

The Strategic Plan for Climate Change Science Briefing is scheduled for:

0567_f_ksf9g003_ceq.txt

Wednesday, May 21 from 2:00 - 3:00 PM at the Office of Science and Technology Policy.

The Front Conference is reserved for the briefing.

Thank you for your cooperation in scheduling this briefing.

Best regards,

Sandy Toomey
OSTP Science Division
202-456-6072 (Direct)
202-456-6130 (Science Division Main #)

----- Forwarded by Sandra J. Toomey/OSTP/EOP on
04/22/2003 04:10 PM -----

Sandra J. Toomey
04/22/2003 01:12:13 PM
Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP, Sherron R. White/OMB/EOP@EOP
cc: Jobi A. Parrish/OSTP/EOP@EOP, David Halpern/OSTP/EOP@EOP
Subject: NEW DATES FOR: Strategic Plan for Climate Briefing

Good Afternoon;

The following dates are available for the Strategic Plan for Climate Briefing:

Monday, May 12 - 3:00 PM or 4:00 PM;
Wednesday, May 21 - 1:00 PM, 2:00 PM, 3:00 PM or 4:00 PM;
Thursday, 5/22 - 1:00 PM, 2:00 PM, 3:00 PM or 4:00 PM.

We do hope that one of these dates will work with Phil, Marcus and Kathy!

Many thanks to you all for your flexibility,

Best Regards,

Sandy Toomey
OSTP Science Division
202-456-6072 (Direct)
202-456-6130 (Science Division Main #)

----- Forwarded by Sandra J. Toomey/OSTP/EOP on
04/22/2003 12:18 PM -----

Sandra J. Toomey
04/16/2003 08:54:10 AM
Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP, Sherron R. White/OMB/EOP@EOP, Jobi A. Parrish/OSTP/EOP@EOP, kueter@marshall.org @ inet
cc: David Halpern/OSTP/EOP@EOP

Page 2

CEQ 004831

0567_f_ksf9g003_ceq.txt

Subject: ANOTHER DATE FOR: Strategic Plan for Climate Briefing

Good Morning -

I will need to determine a new date for the above briefing and will you email new alternate dates shortly.

Best regards,

Sandy Toomey
OSTP Science Division
202-456-6072(direct)
202-456-6130(Main)



**EDISON ELECTRIC
INSTITUTE**

May 12, 2003

The Honorable James L. Connaughton, Esq.
Chairman
White House Council on Environmental Quality
730 Jackson Place, N.W.
Washington, D.C. 20503

Re: Key Policy Issues Relating to Energy Policy Act Section 1605(b)

Dear Chairman ^{Jim} Connaughton:

I understand that scheduling difficulties prevented the meeting among you, Dale Heydlauff, American Electric Power's Senior Vice President, and me from occurring on May 9 with respect to Energy Policy Act section 1605(b) issues.

I commend to your attention the enclosed letter that the Electric Power Industry Climate Initiative (EPICI) transmitted to Under Secretary of Energy Robert Card on May 6. The illustrative examples on pages 4-6 of the letter may be of particular interest to you and others in the Administration. EPICI still believes that it is imperative that we discuss several key policy issues addressed in the May 6 letter and EPICI position papers transmitted to you and other Administration officials on March 5.

I will check Tom Kuhn and Quin Shea's schedules and we will transmit another request to your assistant to meet with you on 1605(b) issues. We look forward to meeting with you prior to the next meeting of the "Deputies" on these key policy issues.

Sincerely,

A handwritten signature in black ink that reads 'Bill Fang'.

William L. Fang
Deputy General Counsel and Climate Issue Director

WLF:wg
cc (w/ enc):

**Greenhouse Effects/1605(b)
Draft Strawman**

001926

CEQ 004834

The Honorable James L. Connaughton, Esq.
May 12, 2003
Page 2

Dr. Bryan J. Hannegan,
Associate Director for Energy and Transportation, CEQ

Dale E. Heydlauff,
Senior Vice President, AEP

Thomas R. Kuhn
Quinlan J. Shea, III, Esq.
Eric K. Holdsworth

CEQ 59 PC

-EXECUTIVE OFFICE OF THE PRESIDENT-



**COUNCIL ON
ENVIRONMENTAL
QUALITY**

730 Jackson Place, NW
Washington, DC 20503

PHONE: (202) 456-6224

FAX: (202) 456-2710

| | | | |
|--------------|---------------|---------------|-------------------------------|
| TO: | David Halpern | | |
| FROM: | Phil Cooney | | |
| DATE: | 05/14/03 | PAGES: | 10
(INCLUDING COVER SHEET) |

COMMENTS: _____

The document(s) accompanying this FAX transmission may contain information, which is confidential and/or sensitive. The information is intended only for use by the individual or entity named on this transmission sheet. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of any action in reliance on the contents of this faxed information is strictly prohibited, and that the documents should be returned to this office immediately. In this regard, if you have received this FAX in error, please notify us by telephone immediately so that we can arrange for the return of the original document(s) to us.

CEQ 63
PC

**STRATEGIC PLAN
FOR THE
CLIMATE CHANGE SCIENCE PROGRAM**

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- Chapter 2. Integrating Climate and Global Change Research
- Chapter 3. Atmospheric Composition
- Chapter 4. Climate Variability and Change
- Chapter 5. Water Cycle
- Chapter 6. Land Use/Land Cover Change
- Chapter 7. Carbon Cycle
- Chapter 8. Ecosystems
- Chapter 9. Human Contributions and Responses to Environmental Change
- Chapter 10. Modeling Strategy
- Chapter 11. National and Place-Based Decision Support Resources
- ① Chapter 12. Observing and Monitoring the Climate System
- Chapter 13. Data Management and Information
- Chapter 14. Communications
- Chapter 15. International Research and Cooperation
- Chapter 16. Program Management and Review

Annexes

- A. Authors, Reviewers, and Workshop Participants
- B. References
- C. Graphics and Photography Source Information
- D. Glossary
- E. Acronyms and Units

0580_f_gkgfg003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME:14-MAY-2003 17:45:17.00

SUBJECT:: Bush administration's critics press their cases in court

TO:Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:Kameron L. Onley (CN=Kameron L. Onley/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:Bryan J. Hannegan (CN=Bryan J. Hannegan/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

BCC:Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP [CEQ])
READ:UNKNOWN

TEXT:

Wednesday, May 14, 2003

CLIMATE CHANGE

Bush administration's critics press their cases in court

Darren Samuelsohn, Greenwire senior reporter

The Bush administration's climate change policies face a myriad of legal challenges -- from states, environmentalists and conservative groups -- that will both guide and shadow the regulatory debate while lawmakers and policy officials spar over the issue in other venues.

But bringing the climate change debate before the judicial branch is a slippery slope, observers say, with implications that could factor into international negotiations and 2004 presidential politics.

While many Bush administration supporters contend the lawsuits are driven by politics and are unlikely to gain traction, critics argue that the courts are one of the only means by which it can force the United States to address an issue that has consumed much of the rest of the world.

Already, the Bush administration has sought to dismiss one climate change case in its preliminary stages, filing a brief in federal district court last month arguing that environmentalists lack legal standing to challenge the government's decision to not regulate carbon dioxide emissions from automobiles (Greenwire, Dec. 6).

In Oakland, Calif., a separate team of environmentalists will argue on Friday before a federal judge that the U.S. EPA should within two years update its Clean Air Act new source performance standards (NSPS) for power plants and other industrial facilities to include CO2 requirements. The Justice Department, on behalf of EPA, argues in a recent brief that the California court lacks jurisdiction on the issue, and if it assumes such jurisdiction the agency would need until October 2005 to complete a review for CO2 controls.

Soon, a coalition of seven state attorneys general, led by New York's Eliot Spitzer (D), will file suit challenging the EPA's NSPS standards on grounds similar to those put forward in California (Greenwire, Feb. 21). While a court venue has not been determined in the case brought by Spitzer

Page 1

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CEQ 004841

and the other six Democratic attorneys general, several sources close to the case said yesterday that they expect the AGs' challenge to be consolidated with the one brought by environmentalists in U.S. District Court for the Northern District of California. The latter case, brought by the Sierra Club and Our Children's Earth before Judge Claudia Wilken, is on a faster track to resolution, sources said.

Meanwhile, state's attorneys from Massachusetts, Maine and Connecticut are preparing another lawsuit against EPA that aims to have the agency classify CO₂ as a pollutant under CAA, thereby starting the process to regulate emissions of the gas under the law's National Ambient Air Quality Standards (Greenwire, Jan. 31). The AGs filed a 60-day notice of intent to sue in late January but have neither filed the challenge nor indicated what court they will seek as a venue. The Bush administration has responded to the threatened suit by arguing that CO₂ is not a pollutant and therefore does not merit consideration under CAA.

Conservative challenges

Representing the flip side of the debate, the conservative Competitive Enterprise Institute continues to claim that the Bush administration is working through back channels to implement the Kyoto Protocol. EPA is under a federal court order through the Freedom of Information Act to provide CEI either a compilation of roughly 125 documents pertaining to climate change or an index explaining their reasons for withholding the documents. Chris Horner, a CEI senior fellow and attorney, said he expects the FOIA cache to be released this week.

In an interview yesterday, Horner said CEI is poised to file two more lawsuits against the Bush administration -- one aimed at forcing the State Department to formally remove President Clinton's 1998 signature from the Kyoto treaty and another that would require the White House Office of Science and Technology Policy (OSTP) to publicly revoke its connections to the "Climate Action 2002 Report" submitted to the United Nations last June. That report outlined potential climate change impacts for the United States (Greenwire, June 3).

Since the Clinton administration, the White House has engaged in a public tug-of-war with CEI over the national assessment report. In an April letter to CEI, Kathie Olsen, OSTP's associate director for science, said the document is not an official position of the Bush administration, but rather constitutes the work of a federal advisory committee chartered to help the National Science Foundation. In so doing, OSTP has denied CEI's requests under the Data Quality Act to remove reference to the report. Horner, however, argues that both measures place the Bush administration in a precarious and vulnerable position whereby its critics can gain legal ground by questioning whether the federal government is doing enough on climate change given the publicly available and seemingly U.S.-endorsed data. Horner said other countries could use the documents to challenge the United States in international and domestic legal cases for its decision to not ratify Kyoto (Greenwire, March 6, 2002).

Horner acknowledged that CEI's campaign for the United States' formal withdrawal from Kyoto -- similar to its handling of an international criminal court dispute -- may draw President Bush and his Democratic challenges into a controversial realm during next year's reelection campaign. The CEI suit would require the administration to defend its climate change decisions, raising issues that could prove important in electoral states with abundant coal reserves -- i.e. Ohio, West Virginia and Kentucky -- that both Bush and the Democrats will seek to win.

Administration defends its position

In its defense, the White House has argued through cabinet-level public statements and other correspondence that its climate change policies have adequately addressed the issue throughout its two-plus years in office. In February 2002, Bush asked companies to reduce their greenhouse gas intensity -- the ratio of emissions to economic output -- by 18 percent in the next decade. The administration also established a multi-agency Climate Change Science Program to develop a Climate Change Research Initiative, coordinating it with the existing, congressionally mandated

U.S. Global Change Research Program. During his State of the Union Address this year, Bush unveiled a five-year, \$500 million program to help U.S. automakers research and develop vehicles powered by zero-emission hydrogen fuel cells.

Last week, the white House and a key administration official put an additional stamp on their positions, when the Office of Management and Budget released a Statement of Administrative Policy that said it would oppose any legislative efforts during debate on the Senate's energy bill that pushes Bush beyond his existing climate change positions. And Deputy Energy Secretary Kyle McSlarrow, responding to reporters' questions about possible climate change amendments that would enact a GHG cap or create a mandatory GHG registry system for U.S. industries, said: "we're not standing still."

Scott Segal, a Washington D.C., attorney representing several power companies, said he thinks the state and environmentalist lawsuits are political in nature and based on such weak grounds that no appeals court will give them consideration. Regarding CEI's work, Segal said the cases are "designed to keep the agency honest" and can be resolved "without winning any flashy judgment." Still, he acknowledged the difficult position of the Bush administration given the conservative group's efforts. "I think the administration has had to walk a fine line between a proactive climate policy on the one hand and on the other implementation of Kyoto," he said.



"Conover, David" <David.Conover@hq.doe.gov>
05/15/2003 09:48:02 AM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: Agenda for tomorrow's meeting

<<CCTP Steering Groupagenda051603.doc>>

David Conover
Director, Climate Change Technology Program
US DOE
202-586-3994 (voice)
240-381-6506 (wireless)
202-586-0092 (fax)



- att1.htm



- CCTP Steering Groupagenda051603.doc

Message Sent To:

Bill Hohenstein <whohenst@oce.usda.gov>
Chris Kearney <chris_keamey@ios.doi.gov>
Eve Slater <eslater@osophs.dhhs.gov>
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"Ari Patrinos (E-mail)" <ari.patrinos@science.doe.gov>
"Bob Marlay (E-mail)" <robert.marlay@hq.doe.gov>
"Dina Kruger (E-mail)" <kruger.dina@epa.gov>
"Fred Humphrey (E-mail)" <frederick.e.humphrey@nasa.gov>
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"Ron Birk (E-mail)" <rbirk@hq.nasa.gov>
"Stephen Seidel (E-mail)" <seidel.stephen@epa.gov>

CEQ 61 PC

Call Jim: energy bill
Mahoney



Stephanie.Harrington@noaa.gov
05/15/2003 11:14:09 AM

Record Type: Record

To: CCSP@usgcrp.gov
cc: CCSP_INFO@usgcrp.gov
Subject: CCSP planning meeting - May 20, 3:30-5:00

Bill #
Dave Goodrich NOAA
Bill Hokenstein
Gerry Ellwood
Tom Spence
Jim
Rick Peltz
SH
Jason Koberberg OMB
Linn Wuehler
Susan Avery
Harlan

We are calling for an important planning meeting for the CCSP next Tuesday, May 20, from 3:30 pm to 5:00 pm. It will be held in the large conference room at 1717 Pennsylvania Ave, Suite 250. When possible, principals should attend, but an agency representative may be designated if necessary.

- We will be discussing the following:
- 1) Status of the strategic plan
 - 2) Schedule for the strategic plan reviews
 - 3) FY05 budget priorities

Please let me know if you will be attending this meeting or sending a representative in your place.

Thanks,
Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944

(b)(5) [Redacted]

001469

0603_f_q1bgg003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Stephanie.Harrington@noaa.gov (Stephanie.Harrington@noaa.gov [UNKNOWN])

CREATION DATE/TIME:15-MAY-2003 11:51:54.00

SUBJECT:: FY05 budget status request

TO:CCSP@usgcrp.gov (CCSP@usgcrp.gov [UNKNOWN])
READ:UNKNOWN

CC:CCSP_INFO@usgcrp.gov (CCSP_INFO@usgcrp.gov [UNKNOWN])
READ:UNKNOWN

BCC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])
READ:UNKNOWN

TEXT:

As we start to review the FY05 CCSP budget, we would like to gather as much information as possible at this point.

Would you please provide the following information for your agency:

- 1) the status of your agency budget process and next steps
- 2) any budget information you are able to provide at this point for USGCRP and CCRI requests (caveats on this information are welcome)

Please either bring this information with you to the CCSP meeting on Tuesday or send it electronically to me by COB Tuesday, May 20.

Thanks,
Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944



"Anderson, Margot" <Margot.Anderson@hq.doe.gov>
05/15/2003 12:33:05 PM

Record Type: Record

To: Bryan J. Hannegan/CEQ/EOP@EOP
cc: "Friedrichs, Mark" <Mark.FRIEDRICHS@hq.doe.gov>, "Rypinski,
Arthur" <Arthur.Rypinski@hq.doe.gov>
Subject: decision matrix + draft agency for Friday

Bryan,

[REDACTED]

85

Margot
586-2589

- 1) Progress since last meeting (5 minutes)
 - a. Strawman
 - b. General Guidelines
 - c. Technical Guidelines
- 2) Outstanding Core Issues (matrix)
- 3) Rollout of General Guidelines
 - a. Finalize General Guidelines (2-3 weeks including

004260

Greenhouse Effects/1605(b)
Draft Strawman

268

CEQ 004851

interagency review)

b. Federal Register notice (include summer workshop?)

c. Technical Guidelines - released over summer and early fall

<<May 16 Decision List.doc>>



- May 16 Decision List.doc



"Anderson, Margot" <Margot.Anderson@hq.doe.gov>
05/15/2003 06:02:26 PM

Record Type: Record

To: Bryan J. Hannegan/CEQ/EOP@EOP, Phil Cooney/CEQ/EOP@EOP
cc:
Subject: Key Elements of Revised 1605b:

<<revised key elements ma.doc>>

W
[REDACTED]

Did you have any changes to the agenda? Maybe we could shoot to get these both out by 10:00 tomorrow. I should be in about 8:30.

Margot



- revised key elements ma.doc

004262

CEQ 186 PC



Harvey.Reid@epamail.epa.gov
05/16/2003 03:39:32 PM

Record Type: Record

To: See the distribution list at the bottom of this message

cc:

Subject: EPA has faxed response to CEI

For your information - EPA has this afternoon sent the following document via fax and mail to CEI in response to their letter on the Climate Action Report.

(See attached file: EPA KNelson Response 7428.pdf)

We posted this response on the EPA IQG site this afternoon as well.

Here's a link to that site (see item 7b):

http://www.epa.gov/oei/qualityguidelines/af_req_correction_sub.htm

Finally, we have modified several pages on our website where necessary to cite the Climate Action Report as a State Department document. See, for example, the main page listed below:

<http://yosemite.epa.gov/OAR/globalwarming.nsf/content/ResourceCenterPublicationsUSClimateActionReport.html>

Reid



- EPA KNelson Response 7428.pdf

Message Sent To:

000691

CEQ 004856

Kruger.Joe@epamail.epa.gov
Phil Cooney/CEQ/EOP@EOP
Stanley S. Sokul/OSTP/EOP@EOP
Kathryn M. Harrington/OSTP/EOP@EOP
Theodore W. Uilyot/WHO/EOP@EOP
Edward A. Boling/CEQ/EOP@EOP
Kameron L. Onley/CEQ/EOP@EOP
Jefferson B. Hill/OMB/EOP@EOP
Margo Schwab/OMB/EOP@EOP
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 16 2003

OFFICE OF
ENVIRONMENTAL INFORMATION

Christopher C. Horner
Competitive Enterprise Institute
1001 Connecticut Avenue, NW, Suite 1250
Washington, D.C. 20036

Re: Information Quality Guidelines Request for Correction #7428

Dear Mr. Horner:

The purpose of this letter is to respond to your February 10, 2003, request to the U.S. Environmental Protection Agency (EPA) under the Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency (Information Quality Guidelines) (IQG RFC #7428). You requested that EPA cease dissemination of the U.S. Climate Action Report 2002. This letter also responds to your June 4, 2002, letter requesting that EPA cease dissemination of the Report.

The U.S. Climate Action Report 2002 is the U.S. Third National Communication that was prepared and submitted by the United States pursuant to its obligations under the United Nations Framework Convention on Climate Change (UNFCCC). Since the UNFCCC was ratified by the U.S. in 1992, the State Department has been responsible for developing and submitting each of the U.S. national communications under the UNFCCC (i.e., in 1994, 1997, and 2002). In 2002, as in previous years, the State Department convened an interagency team to draft the document. This team included staff from the Office of Management and Budget, Council on Environmental Quality, Environmental Protection Agency, the Departments of State, Energy, Interior, Commerce, Defense, and Transportation, the US Global Change Research Program, U.S. Agency for International Development, and other federal agencies. The document was submitted by the State Department to the UNFCCC Secretariat on May 28, 2002.

EPA subsequently made the document available on its Web site because of its advanced web hosting capability, which may have been interpreted as an indication that this was an EPA report. The State Department has the responsibility within the U.S. Government for developing and distributing the document to the UNFCCC Secretariat and to other Parties to the Convention. The document clearly states (on the inside cover page) that the Climate Action Report is a U.S. State Department publication.

Therefore, EPA has determined that it is not the appropriate agency to consider Information Quality Guidelines requests for correction relative to the Climate Action Report. The EPA Information Quality Guidelines apply to information EPA disseminates to the public

that is prepared by the Agency to support or represent an EPA viewpoint or to formulate or support a regulation, guidance or other Agency decision or position. Furthermore, the EPA Information Quality Guidelines apply if EPA distributes information prepared or submitted by an outside party in a manner that reasonably suggests that EPA endorses or agrees with it; if EPA indicates in its distribution that the information supports or represents EPA's viewpoint; or if EPA in its distribution proposes to use or uses the information to formulate or support a regulation, guidance, policy, or other Agency decision or position. In this instance, EPA hosts the Climate Action Report on its Web site solely to assist the State Department in providing public access to the Report. While EPA did participate in the interagency drafting effort for the document, EPA is not using it to support or represent an EPA viewpoint or otherwise adopting or endorsing it. Accordingly, EPA is not "disseminating" information in the document, as that term is used in the EPA Information Quality Guidelines. Because the correction process under the EPA Information Quality Guidelines is limited to requests for correction of information disseminated by EPA, EPA Information Quality Guidelines correction and reconsideration processes do not apply to the information in the Climate Action Report, as described in your request.

In view of these considerations, we have forwarded your request to the State Department for their information, and we suggest that you contact the State Department if you wish to pursue this matter. EPA has made several changes to its Web site to state prominently that the U.S. Climate Action Report 2002 is a State Department publication.

If you are dissatisfied with EPA's decision that the information described in your request is not covered by the EPA Information Quality Guidelines, you may submit a Request for Reconsideration (RFR). EPA recommends that this request be submitted within 90 days of the date on this letter. To do so, send a written request to the Agency's Information Quality Guidelines Processing Staff via mail (Information Quality Guidelines Staff, Mail Code 28220T, U.S. EPA, 1200 Pennsylvania Ave., NW Washington, D.C., 20460), electronic mail (quality.guidelines@epa.gov) or fax (202 566-0255). The RFR should reference the request number assigned to the original request for correction (identified in the first sentence/first paragraph of this response). Additional information that should be included in the request is listed on Information Quality Guidelines Web site (<http://www.epa.gov/oei/qualityguidelines/>).

Sincerely,



Kimberly T. Nelson
Assistant Administrator and
Chief Information Officer

cc: Dan Reifsnyder, Director, Office of Global Change, U.S. State Department
Jeffrey R. Holmstead, Assistant Administrator for Air and Radiation, U.S. EPA

CEQ 186 PC



Harvey.Reid@epamail.epa.gov
05/16/2003 03:39:32 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc:
Subject: EPA has faxed response to CEI

For your information - EPA has this afternoon sent the following document via fax and mail to CEI in response to their letter on the Climate Action Report.

(See attached file: EPA KNelson Response 7428.pdf)

We posted this response on the EPA IQG site this afternoon as well. Here's a link to that site (see item 7b):
http://www.epa.gov/oei/qualityguidelines/af_req_correction_sub.htm

Finally, we have modified several pages on our website where necessary to cite the Climate Action Report as a State Department document. See, for example, the main page listed below:

<http://yosemite.epa.gov/OAR/globalwarming.nsf/content/ResourceCenterPublicationsUSClimateActionReport.html>

Reid



- EPA KNelson Response 7428.pdf

Message Sent To:

CEQ 004861

Kruger.Joe@epamail.epa.gov
Phil Cooney/CEQ/EOP@EOP
Stanley S. Soku/OSTP/EOP@EOP
Kathryn M. Harrington/OSTP/EOP@EOP
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Shana L. Dale/OSTP/EOP@EOP
Mclean.Brian@epamail.epa.gov



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 16 2003

OFFICE OF
ENVIRONMENTAL INFORMATION

Christopher C. Horner
Competitive Enterprise Institute
1001 Connecticut Avenue, NW, Suite 1250
Washington, D.C. 20036

Re: Information Quality Guidelines Request for Correction #7428

Dear Mr. Horner:

The purpose of this letter is to respond to your February 10, 2003, request to the U.S. Environmental Protection Agency (EPA) under the Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency (Information Quality Guidelines) (IQG RFC #7428). You requested that EPA cease dissemination of the U.S. Climate Action Report 2002. This letter also responds to your June 4, 2002, letter requesting that EPA cease dissemination of the Report.

The U.S. Climate Action Report 2002 is the U.S. Third National Communication that was prepared and submitted by the United States pursuant to its obligations under the United Nations Framework Convention on Climate Change (UNFCCC). Since the UNFCCC was ratified by the U.S. in 1992, the State Department has been responsible for developing and submitting each of the U.S. national communications under the UNFCCC (i.e., in 1994, 1997, and 2002). In 2002, as in previous years, the State Department convened an interagency team to draft the document. This team included staff from the Office of Management and Budget, Council on Environmental Quality, Environmental Protection Agency, the Departments of State, Energy, Interior, Commerce, Defense, and Transportation, the US Global Change Research Program, U.S. Agency for International Development, and other federal agencies. The document was submitted by the State Department to the UNFCCC Secretariat on May 28, 2002.

EPA subsequently made the document available on its Web site because of its advanced web hosting capability, which may have been interpreted as an indication that this was an EPA report. The State Department has the responsibility within the U.S. Government for developing and distributing the document to the UNFCCC Secretariat and to other Parties to the Convention. The document clearly states (on the inside cover page) that the Climate Action Report is a U.S. State Department publication.

Therefore, EPA has determined that it is not the appropriate agency to consider Information Quality Guidelines requests for correction relative to the Climate Action Report. The EPA Information Quality Guidelines apply to information EPA disseminates to the public.

Internet Address (URL) = <http://www.epa.gov>

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that is prepared by the Agency to support or represent an EPA viewpoint or to formulate or support a regulation, guidance or other Agency decision or position. Furthermore, the EPA Information Quality Guidelines apply if EPA distributes information prepared or submitted by an outside party in a manner that reasonably suggests that EPA endorses or agrees with it; if EPA indicates in its distribution that the information supports or represents EPA's viewpoint; or if EPA in its distribution proposes to use or uses the information to formulate or support a regulation, guidance, policy, or other Agency decision or position. In this instance, EPA hosts the Climate Action Report on its Web site solely to assist the State Department in providing public access to the Report. While EPA did participate in the interagency drafting effort for the document, EPA is not using it to support or represent an EPA viewpoint or otherwise adopting or endorsing it. Accordingly, EPA is not "disseminating" information in the document, as that term is used in the EPA Information Quality Guidelines. Because the correction process under the EPA Information Quality Guidelines is limited to requests for correction of information disseminated by EPA, EPA Information Quality Guidelines correction and reconsideration processes do not apply to the information in the Climate Action Report, as described in your request.

In view of these considerations, we have forwarded your request to the State Department for their information, and we suggest that you contact the State Department if you wish to pursue this matter. EPA has made several changes to its Web site to state prominently that the U.S. Climate Action Report 2002 is a State Department publication.

If you are dissatisfied with EPA's decision that the information described in your request is not covered by the EPA Information Quality Guidelines, you may submit a Request for Reconsideration (RFR). EPA recommends that this request be submitted within 90 days of the date on this letter. To do so, send a written request to the Agency's Information Quality Guidelines Processing Staff via mail (Information Quality Guidelines Staff, Mail Code 28220T, U.S. EPA, 1200 Pennsylvania Ave., NW Washington, D.C., 20460), electronic mail (quality.guidelines@epa.gov) or fax (202 566-0255). The RFR should reference the request number assigned to the original request for correction (identified in the first sentence/first paragraph of this response). Additional information that should be included in the request is listed on Information Quality Guidelines Web site (<http://www.epa.gov/oqi/qualityguidelines/>).

Sincerely,



Kimberly T. Nelson
Assistant Administrator and
Chief Information Officer

cc: Dan Reifsnnyder, Director, Office of Global Change, U.S. State Department
Jeffrey R. Holtmstead, Assistant Administrator for Air and Radiation, U.S. EPA

CCTP Steering Group
May 16, 2003
10am-12pm
GH-019
Agenda

9:45

- Introductions (10-10:10)
- CCTP Deliverables (10:10-10:30)
- CCTP Working Group reports (10:30-11:00)
- Steering Group deliverables (11:00-11:30)
- ~~1605(b) update (11:30-11:40)~~ *tech pathways to update Strategic & Plan*
- Discussion/Next Steps (11:40-12:00)
- Adjourn

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Status of Strategic Plan as of 20 May 2003

Chapters 1-2 (Introduction and Integrating Climate and Global Change Research)

- Ready to be sent to WGCC as contributing authors for final input

Working Group Co-Chairs

Chapters 3-9 (Science Chapters)

- In copy-editing

Chapter 10 (Modeling)

- Revised complete draft due May 23

Chapter 11 (Decision Support Resources)

- Will be ready to be sent to WGCC as contributing authors for final input by May 21

Chapters 12-15 (Observations, Data, Communications, International)

- In copy-editing

Chapter 16 (Program Management)

- Revised complete draft due May 23

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Status of Strategic Plan as of 20 May 2003

Chapters 1-2 (Introduction and Integrating Climate and Global Change Research)

- Ready to be sent to WGCC as contributing authors for final input

with George Co-Chair

Chapters 3-9 (Science Chapters)

- In copy-editing

Chapter 10 (Modeling)

- Revised complete draft due May 23

Chapter 11 (Decision Support Resources)

- Will be ready to be sent to WGCC as contributing authors for final input by May 21

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Chapter 16 (Program Management)

- Revised complete draft due May 23

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AGENDA
CCSP Meeting 20 May 2003
3:30-5:00 pm

Review of Status of Strategic Plan

- Status of individual chapters
- Discussion of draft synthesis and assessment products

Moss
Mahoney

Schedule for Production of Strategic Plan

Harrington

FY05 Budget

- Status of Agency FY05 Budget Requests
- Discussion of FY05 Priority List

Mahoney

CEQ 71 PC

May 20

To: Philip Cooney
Fax, 202-456-6224

From: David Halpern
Telephone, 202-456-6038
Fax, 202-456-6027

Phil,

Here is the second version of the OSTP Overview of the CCSP Strategic Plan.

I would greatly appreciate your comments asap.

Many thanks.

Dave

TOTAL NUMBER OF PAGES SENT BY FAX = 10

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Version 19 May 03

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- Scientific Questions
- Climate Machinery
- Climate Observing System
- Climate Modeling
- Infrastructure Modernization
- Scientific Assessments
- Education and Communication

MANAGEMENT PLAN

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Interagency Working Group on Climate Change Science and Technology
Subgroup Meeting

Thursday, May 22, 2003, 3:00 – 4:30
Department of Commerce, Rm. 5838

Agenda


from DOE
@ Journal to Sam
+ Bob Carl
pie charts

I CCTP Update (David Conover)

- FY05 Budget Priorities
- National Climate Change Technologies Initiative (NCCTI) Request for Information (RFI) Analysis
- FY03 Technology R&D Baseline
- COP-9 Technology Expo

II CCSP Update (James Mahoney)

- Strategic Plan Update (June 25 release date)
- Update on Decision Support Resource Analyses
- Science and Technology Collaboration
- FY05 Budget Status and Priorities

IV @ US DA →

III Earth Observation Summit 6-8

- CSLF Bonn

Communications Plans

Upcoming "Blue Box" Meeting and Next Steps



[stand alone Earth Observation Report.]

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Interagency Working Group on Climate Change Science and Technology

**Thursday, May 29, 2003, 10:00 a.m. to 12:15 p.m.
Department of Commerce, Rm. 4830**

Agenda

| Time | Item | Invited
Discussion Lead |
|-------------|--|---|
| 10:00 | Call to Order | Dep. Sec. Bodman, DOC |
| 10:05 | Decision Support Analyses | Prof. Henry Jacoby, Co-Director of the
MIT Joint Program on the Science
and Policy of Global Change |
| 10:35 | Legislative and Policy Update | Chairman Connaughton, CEQ |
| 10:45 | International Update | U/S Dobriansky, State |
| 10:55 | Earth Observation Summit | U/S VADM Lautenbacher, DOC |
| 11:05 | 1605(b) Update | U/S Card, DOE |
| 11:15 | CCSP Update, including budget priorities | Ass't. Sec. Mahoney, DOC |
| 11:30 | CCTP Update, including budget priorities | CCTP Dir. Conover, DOE |
| 11:45 | Other Topics and General Discussion | Dep. Sec. Bodman, DOC |
| Noon | Adjourn | |

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Roberta L. Conde (CN=Roberta L. Conde/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME:20-MAY-2003 11:50:03.00

SUBJECT:: Climate Change Science Briefing by James Hansen

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TEXT:

Jim Connaughton would like to invite you to attend a briefing on Climate Change Science by James Hansen of NASA. I have included at the bottom of this e-mail a brief bio on Mr. Hansen. The briefing will take place on June 12, 2003 at 3:00 p.m., CEQ offices, 722 Jackson Place. Thank you.

BIO

Dr. James Hansen heads the NASA Goddard Institute for Space Studies in New York City, which is a division of Goddard Space Flight Center's (Greenbelt, MD), Earth Sciences Directorate. He was trained in physics and astronomy in the space science program of Dr. James Van Allen at the University of Iowa. His early research on the properties of clouds of Venus contributed to their identification as sulfuric acid. Since the late 1970s, he has worked on studies and computer simulations of the Earth's climate, for the purpose of understanding the human impact on global climate. Dr. Hansen is best known for his testimony on climate change to congressional committees in the 1980s that helped raise broad awareness of the global warming issue. He was elected to the National Academy of Sciences in 1995 and, in 2001, received both the Heinz Award for environment as well as the American Geophysical Union's Roger Revelle Medal.

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As of May 21, 2003 (Revised)

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| EPA | Ben Deangelo | 202-564-9107 | Deangelo.Ben@epa.gov |

| | | | |
|----------|------------------|--------------|--|
| NSF | Thomas Chapman | 703-292-8370 | tchapman@nsf.gov |
| OSTP | David Halpern | 202-456-6038 | dhalpern@ostp.eop.gov |
| State | Vaughan Turekian | 202-647-4283 | turekianvc@state.gov |
| USDA-ARS | Steve Shafer | 301-504-4644 | srs@ars.usda.gov |

MEASUREMENT AND MONITORING WORKING GROUP

| | | | |
|--------------|----------------|--------------|--|
| Chair (NASA) | Ron Birk | 202-358-1701 | rbirk@hq.nasa.gov |
| NASA | Steve Hipskind | 202-358-0781 | shipskin@hq.nasa.gov |
| DOE/PNNL | Gerald Stokes | 301-314-6704 | stokes@pnl.gov |
| DOE/LANL | Richard Benson | 505-699-3362 | richard.benson@hq.doe.gov
Rabenson@lanl.gov |
| DOE | Bill Breed | 202-586-4763 | william.breed@hq.doe.gov |
| USDA-FSA | Glenn Bethel | 202-720-1280 | glenn.bethel@usda.gov |
| NOAA | Russ Schnell | 303-497-6733 | russell.c.schnell@noaa.gov |
| NOAA | Kathy Tedesco | 301-427-2089 | kathy.tedesco@noaa.gov |
| OSTP | David Halpern | 202-456-6038 | dhalpern@ostp.eop.gov |
| State | Shira Yoffe | 202-647-4283 | yoffesb@state.gov |
| EPA | Bill Irving | 202-504-9065 | irving.bill@epa.gov |
| USDA-FS | Rich Birdsey | 610-557-4091 | rbirdsey@fs.fed.us |
| USDA-NRCS | Joel Brown | 505-646-2854 | joelbrow@nmsu.edu |

CEQ
268 PC

**Interagency Working Group on Climate Change Science and Technology
Subgroup Meeting**

**Thursday, May 22, 2003, 3:00 – 4:30
Department of Commerce, Rm. 5838**

Agenda

*from DOE
@ forwarded to Sam
& Bob Card
pic charts*

I. CCTP Update (David Conover)

- FY05 Budget Priorities
- National Climate Change Technologies Initiative (NCCTI) Request for Information (RFI) Analysis
- FY03 Technology R&D Baseline
- COP-9 Technology Expo

II CCSP Update (James Mahoney)

- Strategic Plan Update (June 25 release date)
- Update on Decision Support Resource Analyses
- Science and Technology Collaboration
- FY05 Budget Status and Priorities

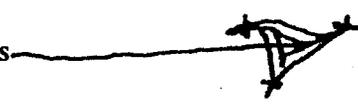
IV @ US DA →

III Earth Observation Summit 6-8

- CSLF - Bonn

Communications Plans

Upcoming "Blue Box" Meeting and Next Steps



[stand alone Earth Observation Report.]

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000685

0691_f_ecgog003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Margarita Gregg <Margarita.Gregg@noaa.gov> (Margarita Gregg
<Margarita.Gregg@noaa.gov> [UNKNOWN])

CREATION DATE/TIME:23-MAY-2003 14:29:11.00

SUBJECT:: Visit by Professor Henry D. Jacoby

TO:ccsp_info@usgcrp.gov (ccsp_info@usgcrp.gov [UNKNOWN])
READ:UNKNOWN

TO:ccsp@usgcrp.gov (ccsp@usgcrp.gov [UNKNOWN])
READ:UNKNOWN

BCC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])
READ:UNKNOWN

TEXT:

> The Climate Change Science Program Office has the pleasure to invite you
> to an informal discussion with Professor Henry D. Jacoby from MIT. The
> discussion will take place at the CCSP Conference Room (1717
> Pennsylvania Avenue, Suite 250), Thursday May 29th, from 2:00 - 3:30
> p.m.

> The following is a short biographical sketch for Dr. Jacoby

> Henry D. Jacoby is the Pounds Professor of Management in the M.I.T.
> Sloan School of Management and holds a Ph.D. in economics from Harvard
> University. Professor Jacoby is an applied economist working in the
> areas global climate change, international energy markets, and the
> application of techniques of corporate finance to the evaluation of
> resource projects under highly variable output prices. At present he is
> Co-director of the Joint Program on the Science and Policy of Global
> Change. For the period 1989-91, Professor Jacoby was Chairman of the
> M.I.T. Faculty.

Margarita

>
> --
> PLEASE NOTE NEW ADDRESS
>
> M.E. Conkright Gregg, Ph.D.
> Temporarily at:
> Climate Change Science Program Office
> 1717 Pennsylvania Avenue
> Suite 250
> Washington, D.C. 20006
> Phone: (202)419-3466
> Fax: (202)223-3064
> Email: Margarita.Gregg@noaa.gov
>
> Permanent address:
> NOAA Program Planning and Implementation Office
> 1315 East-West Highway, Rm # 15752
> Silver Spring, MD 20910-3282
> E-mail: Margarita.Gregg@noaa.gov
> Phone: (301)713-1622 ext 185

0692_f_uwkog003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: PThorne@doc.gov (PThorne@doc.gov [UNKNOWN])

CREATION DATE/TIME: 23-MAY-2003 15:57:06.00

SUBJECT: Interagency Working Group on Climate Change Science and Technology (IWGCCST) -- May 29, 2003

TO: Robert.Card@hq.doe.gov (Robert.Card@hq.doe.gov [UNKNOWN])
READ: UNKNOWN

TO: sbodman@doc.gov (sbodman@doc.gov [UNKNOWN])
READ: UNKNOWN

TO: d.nelson@state.gov (d.nelson@state.gov [UNKNOWN])
READ: UNKNOWN

TO: fisher.linda@epa.gov (fisher.linda@epa.gov [UNKNOWN])
READ: UNKNOWN

TO: jrm@usda.gov (jrm@usda.gov [UNKNOWN])
READ: UNKNOWN

TO: gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])
READ: UNKNOWN

TO: emil.frankel@ost.dot.gov (emil.frankel@ost.dot.gov [UNKNOWN])
READ: UNKNOWN

TO: James_Andrews@onr.navy.mil (James_Andrews@onr.navy.mil [UNKNOWN])
READ: UNKNOWN

TO: steven_griles@ios.doi.gov (steven_griles@ios.doi.gov [UNKNOWN])
READ: UNKNOWN

TO: rcolwell@nsf.gov (rcolwell@nsf.gov [UNKNOWN])
READ: UNKNOWN

TO: Marcus Peacock (CN=Marcus Peacock/OU=OMB/O=EOP@EOP [OMB])
READ: UNKNOWN

TO: John H. Marburger (CN=John H. Marburger/OU=OSTP/O=EOP@EOP [OSTP])
READ: UNKNOWN

TO: James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: eslater@osophs.dhhs.gov (eslater@osophs.dhhs.gov [UNKNOWN])
READ: UNKNOWN

TO: Kathie L. Olsen (CN=Kathie L. Olsen/OU=OSTP/O=EOP@EOP [OSTP])
READ: UNKNOWN

TO: conrad.c.lautenbacher@noaa.gov (conrad.c.lautenbacher@noaa.gov [UNKNOWN])
READ: UNKNOWN

CC: Lynn_Scarlett@ios.doi.gov (Lynn_Scarlett@ios.doi.gov [UNKNOWN])
READ: UNKNOWN

CC: BotetVI@state.gov (BotetVI@state.gov [UNKNOWN])
READ: UNKNOWN

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CC:Roberta L. Conde (CN=Roberta L. Conde/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC:Vicki.Horton@noaa.gov (Vicki.Horton@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:Joy.Viars@hq.doe.gov (Joy.Viars@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:botetVI@state.gov (botetVI@state.gov [UNKNOWN])
READ:UNKNOWN

CC:Scott.Rayder@noaa.gov (Scott.Rayder@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:richard.spinrad@navy.mil (richard.spinrad@navy.mil [UNKNOWN])
READ:UNKNOWN

CC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC:mcleave@hq.nasa.gov (mcleave@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:catlettla@state.gov (catlettla@state.gov [UNKNOWN])
READ:UNKNOWN

CC:Karen Y. Knutson (CN=Karen Y. Knutson/OU=OVP/O=EOP@EOP [OVP])
READ:UNKNOWN

CC:Jobi A. Parrish (CN=Jobi A. Parrish/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

CC:watsonhl@state.gov (watsonhl@state.gov [UNKNOWN])
READ:UNKNOWN

CC:whohenst@OCE.USDA.gov (whohenst@OCE.USDA.gov [UNKNOWN])
READ:UNKNOWN

CC:David.Conover@hq.doe.gov (David.Conover@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:barbara_diehl@ios.doi.gov (barbara_diehl@ios.doi.gov [UNKNOWN])
READ:UNKNOWN

CC:Kleibacker.lu-ann@epa.gov (Kleibacker.lu-ann@epa.gov [UNKNOWN])
READ:UNKNOWN

CC:Pat.A.Simms@noaa.gov (Pat.A.Simms@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:Stephanie.Harrington@noaa.gov (Stephanie.Harrington@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:yvonne.brown@ost.dot.gov (yvonne.brown@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

CC:emsimmons@usaid.gov (emsimmons@usaid.gov [UNKNOWN])
READ:UNKNOWN

CC:Robert C. McNally (CN=Robert C. McNally/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

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CC:reifsnyderDA@state.gov (reifsnyderDA@state.gov [UNKNOWN])
READ:UNKNOWN

CC:mmoore@osophs.dhhs.gov (mmoore@osophs.dhhs.gov [CEA])
READ:UNKNOWN

CC:Mleinen@nsf.gov (Mleinen@nsf.gov [UNKNOWN])
READ:UNKNOWN

CC:linda.lawson@ost.dot.gov (linda.lawson@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

CC:Kevin.Kolevar@hq.doe.gov (Kevin.Kolevar@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:Beale.john@epa.gov (Beale.john@epa.gov [UNKNOWN])
READ:UNKNOWN

CC:James.R.Mahoney@noaa.gov (James.R.Mahoney@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:gpaul@hq.nasa.gov (gpaul@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:ann_klee@ios.doi.gov (ann_klee@ios.doi.gov [UNKNOWN])
READ:UNKNOWN

TEXT:

Attached is the agenda for the Interagency Working Group on Climate Change Science and Technology meeting being held Thursday, May 29, 10:00-12:15 PM in room 4830 at the Department of Commerce. You should use the Secretary's entrance on 15th Street (at the blue awning) for access to the building.

Please confirm your attendance with Stephanie Harrington at 202-482-1944 or Margarita Gregg at 202-419-3466.

I look forward to seeing you next week.

Sam

(See attached file: Agenda IWGCCST Mtng 29May03.doc)

- Agenda IWGCCST Mtng 29May03.doc===== ATTACHMENT 1

ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

Unable to convert NSREOP0103:[ATTACH.D44]SREOP01300GOKWU.001 to ASCII,
The following is a HEX DUMP:

===== END ATTACHMENT 1 =====

Interagency Working Group on Climate Change Science and Technology

Thursday, May 29, 2003, 10:00 a.m. to 12:15 p.m.

Department of Commerce, Rm. 4830

Agenda

| Time | Item | Invited Discussion Lead |
|-------|--|---|
| 10:00 | Call to Order | Dep. Sec. Bodman, DOC |
| 10:05 | Decision Support Analyses | Prof. Henry Jacoby, Co-Director of the MIT Joint Program on the Science and Policy of Global Change |
| 10:35 | Legislative and Policy Update, Including G8 Review | Chairman Connaughton, CEQ |
| 10:50 | International Update, Including Bonn Meetings | U/S Dobriansky, State |
| 11:05 | 1605(b) Update and Carbon Sequestration Leadership Forum | U/S Card, DOE |
| 11:20 | Earth Observation Summit | U/S VADM Lautenbacher, DOC |
| 11:35 | CCTP Update, Including Budget Priorities | CCTP Dir. Conover, DOE |
| 11:50 | CCSP Update, Including Budget Priorities | Ass't. Sec. Mahoney, DOC |
| 12:05 | Other Topics and General Discussion | Dep. Sec. Bodman, DOC |
| 12:15 | Adjourn | |

0693_f_9zlog003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:William Hohenstein <WHOHENST@mailoce.oce.usda.gov> (William Hohenstein <WHOHENST@mailoce.oce.usda.gov> [UNKNOWN])

CREATION DATE/TIME:23-MAY-2003 16:18:02.00

SUBJECT:: Re: Interagency Working Group on Climate Change Science and Technology (IWGCCST) --May 29, 2003

TO:jrm@usda.gov (jrm@usda.gov [UNKNOWN])
READ:UNKNOWN

TO:sbodman@doc.gov (sbodman@doc.gov [UNKNOWN])
READ:UNKNOWN

TO:Robert.Card@hq.doe.gov (Robert.Card@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

TO:PThorne@doc.gov (PThorne@doc.gov [UNKNOWN])
READ:UNKNOWN

CC:Vicki.Horton@noaa.gov (Vicki.Horton@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:Shelia Trollinger <Shelia#032#Trollinger-USDA@mailoce.oce.usda.gov> (Shelia Trollinger <Shelia#032#Trollinger-USDA@mailoce.oce.usda.gov> [UNKNOWN])
READ:UNKNOWN

CC:Deb Atwood <Deb#032#Atwood-USDA@mailoce.oce.usda.gov> (Deb Atwood <Deb#032#Atwood-USDA@mailoce.oce.usda.gov> [UNKNOWN])
READ:UNKNOWN

CC:Stephanie.Harrington@noaa.gov (Stephanie.Harrington@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:Keith Collins <KCOLLINS@mailoce.oce.usda.gov> (Keith Collins <KCOLLINS@mailoce.oce.usda.gov> [UNKNOWN])
READ:UNKNOWN

CC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TEXT:
Deputy Bodman:

USDA is intending to announce a set of new forestry and agriculture incentives for greenhouse gas offsets at an event in early June (either on June 4 or June 6). CEQ has asked us to present our plans at the 5/29 meeting to ensure that the Blue Box group is aware of the event and endorses it.

Thank you,

Bill Hohenstein

William G. Hohenstein
Director
USDA Global Change Program Office

0693_f_9zlog003_ceq.txt

300 7th Street, SW
Room 670, Reporters Building
Washington, DC 20250

Phone: (202) 720-6698
Fax: (202) 401-1176

>>> <PThorne@doc.gov> 05/23/03 03:55PM >>>

Attached is the agenda for the Interagency Working Group on Climate Change Science and Technology meeting being held Thursday, May 29, 10:00-12:15 PM in room 4830 at the Department of Commerce. You should use the Secretary's entrance on 15th Street (at the blue awning) for access to the building.

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Sam

(See attached file: Agenda IWGCCST Mtng 29May03.doc)

0696_f_zjrog003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 23-MAY-2003 18:37:32.00

SUBJECT:: Re: Interagency Working Group on Climate Change Science and Technology (IWGCCST) -- May 29, 2003

TO: PThorne@doc.gov (PThorne@doc.gov [UNKNOWN])
READ: UNKNOWN

CC: Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

CC: Kameran L. Onley (CN=Kameran L. Onley/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

CC: Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

CC: Bryan J. Hannegan (CN=Bryan J. Hannegan/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

CC: Roberta L. Conde (CN=Roberta L. Conde/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TEXT:

Jim Connaughton and I will attend -- also attending from our staff may be Kameran Onley, Ken Peel, Bryan Hannegan and Deb Fiddelke
Thanks Phil Cooney

PThorne@doc.gov
05/23/2003 03:55:51 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: Interagency Working Group on Climate Change Science and Technology (IWGCCST) -- May 29, 2003

Attached is the agenda for the Interagency working Group on Climate Change Science and Technology meeting being held Thursday, May 29, 10:00-12:15 PM in room 4830 at the Department of Commerce. You should use the Secretary's entrance on 15th Street (at the blue awning) for access to the building.

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Sam

003320

(See attached file: Agenda IWGCCST Mtng 29May03.doc)

- Agenda IWGCCST Mtng 29May03.doc

Message Sent

To:

conrad.c.lautenbacher@noaa.gov
James_Andrews@onr.navy.mil
Kathie L. Olsen/OSTP/EOP@EOP
emil.frankel@ost.dot.gov
eslater@osophs.dhhs.gov
gasrar@hq.nasa.gov
James Connaughton/CEQ/EOP@EOP
jrm@usda.gov
John H. Marburger/OSTP/EOP@EOP
fisher.linda@epa.gov
Marcus Peacock/OMB/EOP@EOP
d.nelson@state.gov
rcolwell@nsf.gov
sbodman@doc.gov
steven_griles@ios.doi.gov
Robert.Card@hq.doe.gov

Message Copied

To:

ann_klee@ios.doi.gov
whohenst@OCE.USDA.gov
gpauls@hq.nasa.gov
watsonhl@state.gov
James.R.Mahoney@noaa.gov
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Pat.A.Simms@noaa.gov
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BotetVI@state.gov
barbara_diehl@ios.doi.gov
Lynn_Scarlett@ios.doi.gov
David.Conover@hq.doe.gov

===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

0698_f_40vog003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 24-MAY-2003 08:34:45.00

SUBJECT: Visit by Professor Henry D. Jacoby

TO: Bryan J. Hannegan (CN=Bryan J. Hannegan/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Kameron L. Onley (CN=Kameron L. Onley/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TEXT:

FYI -- consider attending. Phil
----- Forwarded by Phil Cooney/CEQ/EOP on 05/24/2003
08:33 AM -----

Margarita Gregg <Margarita.Gregg@noaa.gov>
05/23/2003 02:24:31 PM

Record Type: Record

To: ccsp@usgcrp.gov, ccsp_info@usgcrp.gov
CC:
Subject: Visit by Professor Henry D. Jacoby

> The Climate Change Science Program Office has the pleasure to invite you
> to an informal discussion with Professor Henry D. Jacoby from MIT. The
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> Co-director of the Joint Program on the Science and Policy of Global
> Change. For the period 1989-91, Professor Jacoby was Chairman of the
> M.I.T. Faculty.

Margarita

>
> --
> PLEASE NOTE NEW ADDRESS
>
> M.E. Conkright Gregg, Ph.D.
> Temporarily at:
> Climate Change Science Program Office
> 1717 Pennsylvania Avenue

Page 1

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- > Phone: (202)419-3466
- > Fax: (202)223-3064
- > Email: Margarita.Gregg@noaa.gov
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- > Silver Spring, MD 20910-3282
- > E-mail: Margarita.Gregg@noaa.gov
- > Phone: (301)713-1622 ext 185

0701_f_8p4qg003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: PThorne@doc.gov (PThorne@doc.gov [UNKNOWN])

CREATION DATE/TIME: 27-MAY-2003 15:31:20.00

SUBJECT:: Interagency Working Group on Climate Change Science and Technology (IWGCCST) -- REVISED AGENDA for May 29 Meeting

TO: Robert.Card@hq.doe.gov (Robert.Card@hq.doe.gov [UNKNOWN])
READ: UNKNOWN

TO: sbodman@doc.gov (sbodman@doc.gov [UNKNOWN])
READ: UNKNOWN

TO: d.nelson@state.gov (d.nelson@state.gov [UNKNOWN])
READ: UNKNOWN

TO: fisher.linda@epa.gov (fisher.linda@epa.gov [UNKNOWN])
READ: UNKNOWN

TO: jrm@usda.gov (jrm@usda.gov [UNKNOWN])
READ: UNKNOWN

TO: gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])
READ: UNKNOWN

TO: emil.frankel@ost.dot.gov (emil.frankel@ost.dot.gov [UNKNOWN])
READ: UNKNOWN

TO: James_Andrews@onr.navy.mil (James_Andrews@onr.navy.mil [UNKNOWN])
READ: UNKNOWN

TO: steven_griles@ios.doi.gov (steven_griles@ios.doi.gov [UNKNOWN])
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TO: rcolwell@nsf.gov (rcolwell@nsf.gov [UNKNOWN])
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TO: eslater@osophs.dhhs.gov (eslater@osophs.dhhs.gov [UNKNOWN])
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READ: UNKNOWN

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CC:Roberta L. Conde (CN=Roberta L. Conde/OU=CEQ/O=EOP@EOP [CEQ])
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CC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC:mcleave@hq.nasa.gov (mcleave@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:catlett1a@state.gov (catlett1a@state.gov [UNKNOWN])
READ:UNKNOWN

CC:Karen Y. Knutson (CN=Karen Y. Knutson/OU=OVP/O=EOP@EOP [OVP])
READ:UNKNOWN

CC:Jobi A. Parrish (CN=Jobi A. Parrish/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

CC:watsonh1@state.gov (watsonh1@state.gov [UNKNOWN])
READ:UNKNOWN

CC:whohenst@OCE.USDA.gov (whohenst@OCE.USDA.gov [UNKNOWN])
READ:UNKNOWN

CC:David.Conover@hq.doe.gov (David.Conover@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:barbara_diehl@ios.doi.gov (barbara_diehl@ios.doi.gov [UNKNOWN])
READ:UNKNOWN

CC:Kleibacker.lu-ann@epa.gov (Kleibacker.lu-ann@epa.gov [UNKNOWN])
READ:UNKNOWN

CC:Pat.A.Simms@noaa.gov (Pat.A.Simms@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:Stephanie.Harrington@noaa.gov (Stephanie.Harrington@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:yvonne.brown@ost.dot.gov (yvonne.brown@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

CC:emsimmons@usaid.gov (emsimmons@usaid.gov [UNKNOWN])
READ:UNKNOWN

CC:Robert C. McNally (CN=Robert C. McNally/OU=OPD/O=EOP@EOP [OPD])
READ:UNKNOWN

0701_f_8p4qg003_ceq.txt

CC:reifsnyderDA@state.gov (reifsnyderDA@state.gov [UNKNOWN])
READ:UNKNOWN

CC:mmoore@osophs.dhhs.gov (mmoore@osophs.dhhs.gov [CEA])
READ:UNKNOWN

CC:Mleinen@nsf.gov (Mleinen@nsf.gov [UNKNOWN])
READ:UNKNOWN

CC:linda.lawson@ost.dot.gov (linda.lawson@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

CC:Kevin.Kolevar@hq.doe.gov (Kevin.Kolevar@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:Beale.john@epa.gov (Beale.john@epa.gov [UNKNOWN])
READ:UNKNOWN

CC:James.R.Mahoney@noaa.gov (James.R.Mahoney@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:gpaul@hq.nasa.gov (gpaul@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:ann_klee@ios.doi.gov (ann_klee@ios.doi.gov [UNKNOWN])
READ:UNKNOWN

TEXT:
Attached is a revised agenda for the Thursday, May 29, IWGCCST meeting. It includes a presentation by USDA.

(See attached file: Agenda IWGCCST Mtng 29May03.doc)
- Agenda IWGCCST Mtng 29May03.doc===== ATTACHMENT 1

=====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert NSREOP0102:[ATTACH.D75]SREOP01300GQ4P8.001 to ASCII,
The following is a HEX DUMP:

===== END ATTACHMENT 1 =====



PThorne@doc.gov
05/27/2003 03:29:34 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: Interagency Working Group on Climate Change Science and Technology (IWGCCST) – REVISED
AGENDA for May 29 Meeting

Attached is a revised agenda for the Thursday, May 29, IWGCCST meeting. It includes a presentation by USDA.

(See attached file: Agenda IWGCCST Mtng 29May03.doc)



- Agenda IWGCCST Mtng 29May03.doc

Message Sent To:

conrad.c.lautenbacher@noaa.gov
James_Andrews@onr.navy.mil
Kathie L. Olsen/OSTP/EOP@EOP
emil.frankel@ost.dot.gov
eslater@osophs.dhhs.gov
gasrar@hq.nasa.gov
James Connaughton/CEQ/EOP@EOP
jrm@usda.gov
John H. Marburger/OSTP/EOP@EOP
fisher.linda@epa.gov
Marcus Peacock/OMB/EOP@EOP
d.nelson@state.gov
rcolwell@nsf.gov
sbodman@doc.gov
steven_griles@ios.doi.gov
Robert.Card@hq.doe.gov

Message Copied To:

ann_klee@ios.doi.gov
whohenst@OCE.USDA.gov
gpaules@hq.nasa.gov
watsonhl@state.gov
James.R.Mahoney@noaa.gov
Jobi A. Parrish/OSTP/EOP@EOP
Beale.john@epa.gov
Karen Y. Knutson/OVP/EOP@EOP
Kevin.Kolevar@hq.doe.gov
catletta@state.gov
linda.lawson@ost.dot.gov
Lynn_Scarlett@ios.doi.gov
Mleinen@nsf.gov
mcleave@hq.nasa.gov
mmoore@osophs.dhhs.gov
Phil Cooney/CEQ/EOP@EOP
reifsnyderDA@state.gov
richard.spinrad@navy.mil
Robert C. McNally/OPD/EOP@EOP
Scott.Rayder@noaa.gov
emsimmons@usaid.gov
botetVI@state.gov
yvonne.brown@ost.dot.gov
Joy.Viars@hq.doe.gov
Stephanie.Harrington@noaa.gov
Vicki.Horton@noaa.gov
Pat.A.Simms@noaa.gov
Roberta L. Conde/CEQ/EOP@EOP
Kleibacker.lu-ann@epa.gov
BotetVI@state.gov
barbara_diehl@ios.doi.gov
Lynn_Scarlett@ios.doi.gov
David.Conover@hq.doe.gov

Woodson



Kameran L. Onley
05/27/2003 05:58:10 PM

Record Type: Record

To: Debbie S. Fiddelke/CEQ/EOP@EOP, Phil Cooney/CEQ/EOP@EOP
cc: Dana M. Perino/CEQ/EOP@EOP
Subject: Meeting on Carbon Sequestration

----- Forwarded by Kameran L. Onley/CEQ/EOP on 05/27/2003 05:57 PM -----



"Quick, Julie" <Julie.Quick@usda.gov>
05/27/2003 04:45:15 PM

Record Type: Record

To: Kameran L. Onley/CEQ/EOP@EOP, Dana M. Perino/CEQ/EOP@EOP
cc:
Subject: Meeting on Carbon Sequestration

2:30 PM Wednesday May 28 in the USDA Whitten Building, Room 221A. Carbon Sequestration Planning Meeting...USDA, CEQ, staff from Sens. Brownback and potentially Roberts office.

If you need to reach me and I'm not at my desk, my cell is 202-302-2988.

We can touch base with NOAA later if we need to...but I'm thinking that the morning event will only be USDA and the Kansas Senators. We will be sharing talking points, etc., with NOAA for the later field hearing.

Julie

-----Original Message-----

From: Ferrara, Todd
Sent: Tuesday, May 27, 2003 4:26 PM
To: Quick, Julie; Nabors, Blake; Bish, Terry; McKalip, Doug; Yarborough, Jonathan; Mausbach, Maurice; Hohenstein, William -OCE
Cc: Knight, Bruce; Harrison, Alisa; Nabors, Blake
Subject: RE: Meeting on Carbon Sequestration

Please keep in mind, news of this travel is a close hold. We have not made this public information yet.

-----Original Message-----

From: Quick, Julie
Sent: Tuesday, May 27, 2003 4:00 PM
To: Nabors, Blake; Ferrara, Todd; Bish, Terry; McKalip, Doug; Yarborough,

Jonathan; Mausbach, Maurice; Hohenstein, William -OCE
Cc: Knight, Bruce; Harrison, Alisa
Subject: Meeting on Carbon Sequestration

Secretary Veneman will be travelling to Kansas City to make some announcements on carbon sequestration with Sen. Brownback (and potentially other Kansas Members) on the morning of June 6. We need to hold a planning meeting tomorrow afternoon. Jonathan in Congressional is contacting staff in the Senator's office.... It will be a press event, potentially on a farm near the Kansas City International Airport. Sen. Brownback will then be holding a field hearing that afternoon.

Please let me know if 2:30 PM, tomorrow (Wed.) works for you or a backup from your office. Folks from CEQ will be here as well. We tentatively will meet in 221A.

Terry, Doug, Maury -- I'm not sure who the best person from NRCS would be to help with this, so I'll let you guys figure out who needs to be there. I had heard that the Kansas State Conservationist would be available to help designate the venue and perhaps with the event....would one of you touch base with that person....call me if you need more details.

Julie Jo Quick
U.S. Department of Agriculture
1400 Independence Ave., SW, #404A
Washington, DC 20250
202-720-4623

0706_f_kxwqg003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:"Stephanie.Harrington" <Stephanie.Harrington@noaa.gov> (
"Stephanie.Harrington" <Stephanie.Harrington@noaa.gov> [UNKNOWN])

CREATION DATE/TIME:28-MAY-2003 10:54:21.00

SUBJECT:: Any requirements for the IWGCCST meeting?

TO:jrm@usda.gov (jrm@usda.gov [UNKNOWN])
READ:UNKNOWN

TO:David.Conover@hq.doe.gov (David.Conover@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

TO:d.nelson@state.gov (d.nelson@state.gov [UNKNOWN])
READ:UNKNOWN

TO:Robert.Card@hq.doe.gov (Robert.Card@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

TO:James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC:Joy.Viars@hq.doe.gov (Joy.Viars@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:"whohenst@OCE.USDA.gov" <whohenst@OCE.USDA.gov> ("whohenst@OCE.USDA.gov"
<whohenst@OCE.USDA.gov> [UNKNOWN])
READ:UNKNOWN

CC:botetVI@state.gov (botetVI@state.gov [UNKNOWN])
READ:UNKNOWN

CC:Roberta L. Conde (CN=Roberta L. Conde/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TEXT:

Please let me know if you will need any presentation equipment for the
IWGCCST meeting tomorrow morning (e.g., LCD projector, overhead
projector). If you have an electronic presentation, please send it to me
by COB today so it will be ready to go tomorrow morning.

Thank you.
Stephanie Harrington
U.S. Climate Change Science Program
202-482-1944



Kameran L. Onley
05/29/2003 01:09:56 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP

cc:

Subject: Re: Need review quickly

Phil,

See below. I need your view on whether to incorporate this or not. Kameran

----- Forwarded by Kameran L. Onley/CEQ/EOP on 05/29/2003 01:09 PM -----



William Hohenstein <William.Hohenstein@usda.gov>
05/29/2003 09:40:00 AM

Record Type: Record

To: Julie.Quick@usda.gov (Receipt Notification Requested), Kameran L. Onley/CEQ/EOP@EOP

cc: See the distribution list at the bottom of this message

Subject: Re: Need review quickly

Kameran:



b-

William G. Hohenstein
Director
USDA Global Change Program Office
300 7th Street, SW

004301

CEQ 004924

Room 670, Reporters Building
Washington, DC 20250

Phone: (202) 720-6698
Fax: (202) 401-1176

>>> kameran_l._onley@ceq.eop.gov@INTER2 05/28/03 07:38PM >>>

Bill,

Before we put the fact sheet into staffing, please review the attached changes.

[REDACTED]

I want to get the letter and fact sheet into staffing in the morning, so please review changes asap.

Also, Jason Weller at OMB has some policy questions on the larger version of the document that I ask him to check with you on. I gave him your number and have cc'd him on this e-mail.

Kameran

(See attached file: USDA Fact Sheet 6.03.doc)



- USDAFact w edit and comment.doc

Message Copied To:

Joseph.Glauber@usda.gov (Receipt Notification Requested)
Keith.Collins@usda.gov (Receipt Notification Requested)
Dana M. Perino/CEQ/EOP@EOP
Jason A. Weller/OMB/EOP@EOP
Phil Cooney/CEQ/EOP@EOP
Robert.Stephenson@usda.gov (Receipt Notification Requested)
Skip.Hyberg@usda.gov (Receipt Notification Requested)

CEQ 004925



Kameran L. Onley
05/29/2003 07:22:59 PM

Record Type: Record

To: "Quick, Julie" <Julie.Quick@usda.gov>
cc: See the distribution list at the bottom of this message
bcc:
Subject: Re: Carbon Sequestration Event 

Julie,

We need to confirm if Sen Roberts, can he attend? It is important that both Senators are there. If so, the plan is good.

Of course our first preference would have been on a farm, but at this date and hour, we should take what we can get. I think it sounds fine and from what you described you already have media set up to attend.

That's great. Kameran

"Quick, Julie" <Julie.Quick@usda.gov>



"Quick, Julie" <Julie.Quick@usda.gov>
05/29/2003 06:04:36 PM

Record Type: Record

To: Kameran L. Onley/CEQ/EOP@EOP
cc: See the distribution list at the bottom of this message
Subject: Carbon Sequestration Event

Kameran,

Sen. Brownback's office and some folks at Kansas State are holding a "technical workshop" on carbon sequestration the morning of June 6. You may already be aware of this. They have invited media....which would be the same reporters that we would plan to invite to a Secretarial event. Their agenda is attached....and the USDA-NRCS "guru" on carbon sequestration, Joel Brown, will be participating in the event already, in addition to Dr. Chuck Rice.

It looks like our best option right now would be to have Secretary Veneman speak at the event....they would be happy to make room for her. We will have some logistical difficulties getting to Manhattan but think we can overcome that.

However, we don't want to move ahead on anything without first speaking to you about it....it is still under discussion here....let me know your thoughts.

Thanks!

Julie

-----Original Message-----

004300

CEQ 004927

From: crice [mailto:cwrice@ksu.edu]
Sent: Wednesday, May 28, 2003 3:30 PM
To: Howe, Matt (Roberts)
Subject: FW: CHANGE OF MEETING DATE

Matt

Tentative Agenda

Charles W. Rice
Professor of Soil Microbiology
Director, CASMGS and Kansas EPA-EPSCoR Program
Kansas State University
2004 Throckmorton Plant Sciences Center
Department of Agronomy
Manhattan, KS 66506-5501

Phone: 785-532-7217
Fax: 785-532-6094
Email: cwrice@ksu.edu

-----Original Message-----

From: Eddie Ingalls [mailto:edna.ingalls@ks.usda.gov]
Sent: Wednesday, May 28, 2003 2:02 PM
To: John Drew; Gary Satter; Roger Masenthin; Rick Porter; Duane Cheney;
Dan Curtis; Bruce Wells; Peggy Blackman; Carol S. Hughes; J.D. Rector;
Richard Olson; Jeff Davidson; Mike Beam; Greg Wingfield; Brian
Obermeyer; Brad Loveless; Bob Love; Vickie Leiber; Ken Thomas; Kent
McVay; Rick Davis; Chuck Rice; Bud Davis; Tracy Streeter; Doug Palen;
Jessica Baetz; Barth Crouch; Bill Fuller; Dan Johnson; Stephen Morris;
Loren Medley; Dale Lambley; Timothy Christian; William Hargrove; Jeffery
Williams; Ellis Rewerts; Dereck Schmidt; Dana Hoffman; Drue Durst; John
Bond; Kenlon Johannes; Forrest Chumley; Scott Carlson; Dan Devlin; Scott
Staggenbor; Steve Watson; Dave Spears; Paul Gallagher; Brian Lindley;
Ted Hartsig (E-mail); Mike Walsh; Gary Colliver (E-mail); Patrick
Splichal; Nathan Clark; Merle Holle; Steve Swaffar; Mike Zamrzla; Shawn
Cowing; Chris Williams; Steve Parkin; Brett Myers; Jeff Koscelny; Rita
Schartz; Harold Klaege; Don Paxson; Joann Freeborn; Mike Hayden
Subject: CHANGE OF MEETING DATE

The attached meeting agenda has been REVISED and replaces the one
previously sent.

Please note that ALL of the activities will be held on FRIDAY, JUNE 6.
There will be nothing scheduled on Saturday.



- june6meeting.doc

Message Copied To:

"Ferrara, Todd" <Todd.Ferrara@usda.gov>
"Harrison, Alisa" <Alisa.Harrison@usda.gov>
"Oldroyd, Taylor" <Taylor.Oldroyd@usda.gov>
"Hohenstein, William -OCE" <William.Hohenstein@usda.gov>
Dana M. Perino/CEQ/EOP@EOP

Message Copied To:

"ferrara, todd" <todd.ferrara@usda.gov>
"harrison, alisa" <alisa.harrison@usda.gov>
"oldroyd, taylor" <taylor.oldroyd@usda.gov>
"hohenstein, william -oce" <william.hohenstein@usda.gov>
dana m. perino/ceq/eop@eop
Phil Cooney/CEQ/EOP@EOP
Debbie S. Fiddelke/CEQ/EOP@EOP

CEQ
269 PC

Interagency Working Group on Climate Change Science and Technology

**Thursday, May 29, 2003, 10:00 a.m. to 12:15 p.m.
Department of Commerce, Rm. 4830**

Agenda

| Time | Item | Invited Discussion Lead |
|-------|--|---|
| 10:00 | Call to Order | Dep. Sec. Bodman, DOC |
| 10:05 | Decision Support Analyses | Prof. Henry Jacoby, Co-Director of the MIT Joint Program on the Science and Policy of Global Change |
| 10:35 | Legislative and Policy Update | Chairman Connaughton, CEQ |
| 10:45 | International Update | U/S Dobriansky, State |
| 10:55 | Earth Observation Summit | U/S VADM Lautenbacher, DOC |
| 11:05 | 1605(b) Update | U/S Card, DOE |
| 11:15 | CCSP Update, including budget priorities | Ass't. Sec. Mahoney, DOC |
| 11:30 | CCTP Update, including budget priorities | CCTP Dir. Conover, DOE |
| 11:45 | Other Topics and General Discussion | Dep. Sec. Bodman, DOC |
| Noon | Adjourn | |

000684

July 24
next
mtg.

Group on Climate Change Science and Technology

May 29, 2003, 10:00 a.m. to 12:15 p.m.
Department of Commerce, Rm. 4830

MAY 29,
2003

Agenda

| | | Invited
Discussion Lead |
|---------|---|---|
| | | Dep. Sec. Bodman, DOC |
| 10:05 | Decision Support Analyses | Prof. Henry Jacoby, Co-Director of the MIT Joint Program on the Science and Policy of Global Change |
| ① 10:30 | Legislative and Policy Update, including G8 Review (Global Observation) | Chairman Connaughton, CEQ ① |
| ② 10:45 | International Update, including Bonn Meetings | U/S Dobriansky, State |
| 11:00 | 1605(b) Update and Carbon Sequestration Leadership Forum | U/S Card, DOE |
| 11:15 | Forestry and Agriculture Incentives for Greenhouse Gas Offsets | Dep. Sec. Moseley, USDA |
| 11:30 | Earth Observation Summit | U/S VADM Lautenbacher, DOC |
| 11:45 | CCTP Update, including Budget Priorities | CCTP Dir. Conover, DOE |
| 12:00 | CCSP Update, including Budget Priorities | Ass't. Sec. Mahoney, DOC |
| 12:15 * | Adjourn - P. ... | |

000949

CEQ 004933

CEQ 184 PC

• Dana M. Perino

05/30/2003 03:46:41 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP, Bryan J. Hannegan/CEQ/EOP@EOP

cc:

Subject: *from epa's foia reports*

Freedom of Information Act (FOIA) Inquiries

During the week of May 19, 2003, the Agency received 167 FOIA requests. Of the total, 30 were received in Headquarters. Year-to-date totals are 1,554 for Headquarters and 8,282 agency-wide. Significant FOIA requests received this week include:

(2) Christopher Horner of Competitive Enterprise Institute (CEI) has requested information regarding EPA's decision to publish, post or otherwise disseminate the "Third National Communication", or "Climate Action Report 2002" and the governmental decision to attribute authorship of this report to the State Department;

(3) Christopher Horner of Competitive Enterprise Institute (CEI) has requested documents relating to EPA's response to June 2002 press reports about statements by Governor Whitman that she had not read the U.S. Climate Action Report 2002, and addressing the President's assertions that he, "read the report put out by the bureaucracy." Also requested were documents relating to EPA's objection to or other considerations of Ari Fleischer's June 4, 2002, assertion that, "This report came out of EPA";

CEQ 184 PC

Dana M. Perino

05/30/2003 03:46:41 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP, Bryan J. Hannegan/CEQ/EOP@EOP

cc:

Subject: from epa's foia reports

Freedom of Information Act (FOIA) Inquiries

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(2) Christopher Horner of Competitive Enterprise Institute (CEI) has requested information regarding EPA's decision to publish, post or otherwise disseminate the "Third National Communication", or "Climate Action Report 2002" and the governmental decision to attribute authorship of this report to the State Department;

(3) Christopher Horner of Competitive Enterprise Institute (CEI) has requested documents relating to EPA's response to June 2002 press reports about statements by Governor Whitman that she had not read the U.S. Climate Action Report 2002, and addressing the President's assertions that he, "read the report put out by the bureaucracy." Also requested were documents relating to EPA's objection to or other considerations of Ari Fleischer's June 4, 2002, assertion that, "This report came out of EPA";

000693

CEQ 004936

**STRATEGIC PLAN
FOR THE
CLIMATE CHANGE SCIENCE PROGRAM**

Table of Contents

Strategic Plan Summary

- Chapter 1. Introduction
- Chapter 2. Integrating Climate and Global Change Research
- Chapter 3. Atmospheric Composition
- Chapter 4. Climate Variability and Change
- Chapter 5. Water Cycle
- Chapter 6. Land Use/Land Cover Change
- Chapter 7. Carbon Cycle
- Chapter 8. Ecosystems
- Chapter 9. Human Contributions and Responses to Environmental Change
- Chapter 10. Modeling Strategy
- Chapter 11. National and Place-Based Decision Support Resources
- ① Chapter 12. Observing and Monitoring the Climate System
- Chapter 13. Data Management and Information
- Chapter 14. Communications
- Chapter 15. International Research and Cooperation
- Chapter 16. Program Management and Review

Annexes

- A. Authors, Reviewers, and Workshop Participants
- B. References
- C. Graphics and Photography Source Information
- D. Glossary
- E. Acronyms and Units

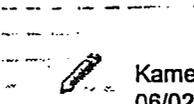
001471

SCHEDULE FOR COMPLETION OF STRATEGIC PLAN

| DATE - 2003 | CHAPTER | ACTION |
|------------------|--|---|
| 23 May | Chapter 1 (Introduction), Chapter 2 (Integration of Research), Chapter 11 (Decision Support) | Teleconference with WG Co-Chairs |
| 23 May | Chapters 3-9 (Science Chapters), 12-15 (Observations, Data, Communications, International) | Final Revisions due to CCSP |
| 23 May | Chapter 10 (Modeling), Chapter 16 (Management) | Final Draft due to CCSP |
| 27 - 29 May | Chapters 1-16 | Review by CCSP |
| 29 May - 10 June | Chapters 1-16 <i>2 thru OMB review</i> | Interagency Review Process (CCSP Agencies and White House Review) |
| 19 - 25 June | Chapters 1-16 | Production of Final Strategic Plan |

2 weeks to review plan

001473



Kameran L. Onley
06/02/2003 06:27:33 PM

Record Type: Record

To: "Quick, Julie" <Julie.Quick@usda.gov>, dwm@usda.gov, William Hohenstein
<WHOHENST@mailoce.oce.usda.gov>
cc: Dana M. Perino/CEQ/EOP@EOP, Debbie S. Fiddelke/CEQ/EOP@EOP, Phil Cooney/CEQ/EOP@EOP
Subject: Cleared letter and Fact sheet 

The letter and the fact sheet have cleared staffing. Please find them attached. Kameran



Veneman letter to POTUS Final.c USDA Fact Sheet 6.03 Final.d



Phil Cooney
06/03/2003 01:17:18 PM

Record Type: Record

To: Quesean R. Rice/CEQ/EOP@EOP
cc: Bryan J. Hannegan/CEQ/EOP@EOP
Subject: Chapters 1-9 of CCSP Strategic Plan ready for Review

Quesean, please print this out for me. thanks, Phil

----- Forwarded by Phil Cooney/CEQ/EOP on 06/03/2003 01:16 PM



E._Holly_Fitter@omb.eop.gov
06/03/2003 12:47:27 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: John D. Bumim/OMB/EOP@EOP, James J. Jukes/OMB/EOP@EOP,
Erin Wuchte/OMB/EOP@EOP
Subject: Chapters 1-9 of CCSP Strategic Plan ready for Review

Attached for final review are chapters 1-9 of the interagency Climate
Change
Science Program Strategic Plan. Chapters 10-16 will be sent to you later
in the
week.

Please provide your comments electronically to ERIN WUCHTE e-mail:
Erin
Wuchte/OMB/EOP by 10:00 AM 6/10.

006

Climate Science Plan
Vision Document

CEQ 004943

Please provide specific fixes to any problems you see and identify page and line numbers or table/figure numbers to which your comments apply. Also, please comment only on critical issues (i.e., inconsistencies within or across chapters) and NOT on grammar/spelling/punctuation since these will be addressed by professional copy editing in the final draft.

[REDACTED]



- CCSPplanFD_Text(ch1-9).pdf

LRM ID: EHF93

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
Washington, D.C. 20503-0001

Tuesday, June 3, 2003

LEGISLATIVE REFERRAL MEMORANDUM

TO: Legislative Liaison Officer - See Distribution below

FROM: John D. Burnim (for) Assistant Director for Legislative Reference

OMB CONTACT: Erin Wuchte
PHONE: (202)395-3452 FAX: (202)395-1150

SUBJECT: COMMERCE Report on Climate Change Science Program Strategic Plan

DEADLINE: 10:00 AM Tuesday, June 10, 2003

DISTRIBUTION LIST

AGENCIES:

019-Council on Environmental Quality - Debbie S. Fiddelke - (202) 456-3908
029-DEFENSE - Vic Bernson - (703) 697-1305
032-ENERGY - Al Beer - (202) 586-4312
033-Environmental Protection Agency - Edward Krenik - (202) 564-5200
025-COMMERCE - Michael A. Levitt - (202) 482-3151
052-HEALTH & HUMAN SERVICES - Sondra S. Wallace - (202) 690-7773
059-INTERIOR - Jane Lyder - (202) 208-4371
007-AGRICULTURE - Jacquelyn Chandler - (202) 720-1272
084-National Science Foundation - Lawrence Rudolph - (703) 292-8060
069-National Aeronautics and Space Administration - Charles T. Horner III - (202) 358-1948
114-STATE - VACANT - (202) 647-4463
117 & 340-TRANSPORTATION - Tom Herlihy - (202) 366-4687
008-US Agency for International Development - Jan W. Miller - (202) 712-4174
109-Smithsonian Institution - Nell Payne - (202) 357-2962
095-Office of Science and Technology Policy - Maureen O'Brien - (202) 456-6037

Message Sent

To: _____



Phil Cooney
06/03/2003 01:17:18 PM

Record Type: Record

To: Quesean R. Rice/CEQ/EOP@EOP
cc: Bryan J. Hannegan/CEQ/EOP@EOP
Subject: Chapters 1-9 of CCSP Strategic Plan ready for Review

Quesean, please print this out for me. thanks, Phil

----- Forwarded by Phil Cooney/CEQ/EOP on 06/03/2003 01:16 PM



E._Holly_Fitter@omb.eop.gov
06/03/2003 12:47:27 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: John D. Bumim/OMB/EOP@EOP, James J. Jukes/OMB/EOP@EOP,
Erin Wuchte/OMB/EOP@EOP
Subject: Chapters 1-9 of CCSP Strategic Plan ready for Review

Attached for final review are chapters 1-9 of the interagency Climate Change Science Program Strategic Plan. Chapters 10-16 will be sent to you later in the week.

Please provide your comments electronically to ERIN WUCHTE e-mail: Erin Wuchte/OMB/EOP by 10:00 AM 6/10.

Climate Science Plan
Vision Document

CEQ 004947

Bryan,

[REDACTED]

[REDACTED] that the Comments letter be cleared with the revision below to address your comments.
[REDACTED]

Rationale:

[REDACTED] the
[REDACTED]

Revision to first paragraph:

[REDACTED]

35

Message Copied To:

- Alan B. Rhinesmith/OMB/EOP@EOP
- Randolph M. Lyon/OMB/EOP@EOP
- Erin Wuchte/OMB/EOP@EOP
- Daryl L. Joseffer/OMB/EOP@EOP
- Richard E. Green/OMB/EOP@EOP



"Ferrara, Todd" <Todd.Ferrara@usda.gov>
06/03/2003 02:04:45 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: See the distribution list at the bottom of this message
Subject: June 6th Announcement Details

Thank you all for your many suggestions regarding the selection of a venue for Secretary Veneman's announcement on Friday morning.

For a multitude of reasons (including concerns about weather, concern about building an audience and ensuring easy media accessibility) we have selected the National Agricultural Center and Hall of Fame in Bonner Springs, KS.

This site is 20 minutes from downtown Kansas City and about 30 minutes from the airport.

Address
The National Agricultural Center & Hall of Fame
630 Hall of Fame Drive
Bonner Springs, Kansas 66012
913-721-1075

Time
Friday, June 6, 2003 at 9:30 a.m. (tentative!)

Note: If the weather holds, there may be an opportunity to do this event outdoors with a picturesque backdrop. If not, the event will be in an auditorium that will seat approx. 150. Many on this e-mail list have expressed a desire to help build a crowd. We should make sure the crowd represents a broad range of interests – especially local farmers, environmental stewards, NRCS folks, etc.

If you aren't inviting folks yourself, feel free to bounce me a list with phone numbers and we can see to it that they are invited.

Thanks again. Call me with questions.....

Todd Ferrara
Special Assistant to the Secretary of Agriculture
U.S. Department of Agriculture
202-720-3072

Message Sent To:

931

CEQ 004950

"Quick, Julie" <Julie.Quick@usda.gov>
"Noland, Josh" <Josh.Noland@usda.gov>
"Raymond, Matt" <Matt.Raymond@usda.gov>
"Harrison, Alisa" <Alisa.Harrison@usda.gov>
"Deberry, Drew" <Drew.Deberry@usda.gov>
"Rey, Mark" <Mark.Rey@usda.gov>
"Oldroyd, Taylor" <Taylor.Oldroyd@usda.gov>
Dana M. Perino/CEQ/EOP@EOP
"Hohenstein, William -OCE" <William.Hohenstein@usda.gov>
Kameran L. Onley/CEQ/EOP@EOP
Phil Cooney/CEQ/EOP@EOP
Debbie S. Fiddelke/CEQ/EOP@EOP

Message Copied To:

DWM@usda.gov
"Waters, Mary" <Mary.Waters@usda.gov>
"Yarborough, Jonathan" <Jonathan.Yarborough@usda.gov>
"Torrey, Mike" <Mike.Torrey@usda.gov>
"Nabors, Blake" <Blake.Nabors@usda.gov>
"Knight, Bruce" <Bruce.Knight@usda.gov>
"Fuller, Bill -FSA" <Bill.Fuller@ks.usda.gov>
"Banks, Chuck -RD" <cbanks@kstopeka2.fsc.usda.gov>

CEQ 150 PC



Deb_Fiddelke@hagel.senate.gov (Deb Fiddelke)
06/03/2002 02:14:29 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP
cc:
Subject: Re:Response to Andy Revkin NYT article on climate change tod

Phil - I don't want to forward this, but you should send it to Andy Wheeler as well. Give me a call when you have a minute, this is starting a minor furor on the Hill. - Deb

Reply Separator

Subject: Response to Andy Revkin NYT article on climate change today
Author: Phil_Cooney@ceq.eop.gov
Date: 6/3/2002 9:31 AM

FYI -- please do not forward with my name attached, PHIL
----- Forwarded by Phil Cooney/CEQ/EOP on 06/03/2002 09:32 AM

Phil Cooney
06/03/2002 09:19:41 AM

Record Type: Record

To: Scott McClellan/WHO/EOP@EOP, Claire E. Buchan/WHO/EOP@EOP

cc: See the distribution list at the bottom of this message
Subject: Response to Andy Revkin NYT article on climate change today

Scott, Andy Revkin's article today is very misleading regarding the recent report that the US submitted last Thursday to the UN on Climate Change. The report, our "National Communication" on climate change that is submitted to the UN every five years pursuant to our obligations under the 1994 Framework Convention on Climate Change, is several hundred pages. Andy Revkin's angle, that we are now conceding and "predicting" that serious negative impacts from climate change will occur in specific regions of the United States, is incorrect. The report contains many caveats that current climate models used in the Assessment are not remotely capable of reliably "predicting" future regional impacts of potential climate change in the United States.

Below are some excerpts in that regard from the report itself:

002064

CEQ 004953

202.331.1010 phone

202.331.0640 fax

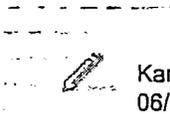
202.262.4458 cell



- Wojick Climate Science Paper.doc

Message Copied To:

John Graham/OMB/EOP@EOP
scott.rayder@noaa.gov
megan.thomson@mail.house.gov
Andrew_Wheeler@epw.senate.gov
Aloysius_Hogan@epw.senate.gov



Kameran L. Onley
06/05/2003 11:03:13 AM

Record Type: Record

To: Todd.Ferrara@usda.gov @ inet, William Hohenstein <WHOHENST@mailoce.oce.usda.gov> @ inet,
Julie.Quick@usda.gov @ inet

cc: Phil Cooney/CEQ/EOP@EOP, Dana M. Perino/CEQ/EOP@EOP, Debbie S. Fiddelke/CEQ/EOP@EOP
Subject: Remarks and Press Release







I think we are good to go. Kameran



USDA press release 6.6.03 FINAL.d Veneman Remarks 6.6.03 FINAL.c

CEQ 19 GRC

BY KAREN CHARMAN | 5.19.03

The "K" Word

U.S. turns its back on Kyoto and global warming

As evidence of global warming mounts, the Bush administration and right-wing, industry-funded "researchers" who have long denied the phenomenon are trying a new tactic: muzzle the science.

In February, the Competitive Enterprise Institute, a pro-market think tank, asked the Bush administration to "cease dissemination" of a government report on grounds that it violates a new regulation, the Data Quality Act. The report, the National Assessment of Climate Change, modeled the likely impact of global warming on the United States. The unprecedented research effort took several years and involved government agencies, scientists and academics.

The Data Quality Act requires federal agencies to ensure the information they disseminate is accurate.

6/10/2003

Message

and to enable interested parties—that is, industry—to challenge the information if they disagree. According to one high-ranking government official, who requested anonymity, the law—which was slipped into a 2001 appropriations bill without hearings—“could be used to undermine any legitimate scientific effort” that threatens corporate interests.

Burning fossil fuels releases carbon dioxide, the main culprit in planetary warming, into the atmosphere. The journal *Science* reports that energy consumption over the last 100 years has increased 16-fold, bumping atmospheric concentrations of carbon dioxide to their highest level in 420,000 years.

Acknowledging the existence of global warming threatens the fossil fuel industry, because mitigating or reversing it means shunning fossil fuels like coal and oil. Rather than deal with the problem, the powerful and hugely profitable fossil fuel industry has engaged in an aggressive disinformation campaign to discredit the science and disrupt any effort to solve it.

As higher levels of greenhouse gases trap heat in the Earth's upper atmosphere, rising global temperatures are destabilizing climate patterns—thawing the permafrost in Alaska, melting glaciers, and causing enormous ice shelves to break apart in both the Arctic and Antarctica. The melting ice is expected to raise sea levels four to 40 inches by 2100, scientists say, submerging islands and coastal regions throughout the world. According to Robert Gagosian, director of the Woods Hole Oceanographic Institute, the influx of fresh water into the northern Atlantic Ocean could disrupt global ocean currents and potentially lead to a “mini ice age” in the northeastern United States and Europe, even as the rest of the planet warms.

Escalating weather-related disasters, which confirm computer-modeled predictions, are further discrediting the naysayers. And even the Bush administration now reluctantly admits global climate change is occurring as a result of burning fossil fuels.

That doesn't mean they're doing much about it. President Bush's climate change plan, announced last year, has called for 10 more years of study and voluntary reductions of 18 percent in greenhouse gas intensity by 2012. The Kyoto Protocol, which Bush rejected, calls for 5 percent reductions from 1990 levels for industrialized nations by 2012. The United States, with 4 percent of the world's population, is the largest contributor to global warming, releasing about 25 percent of the world's greenhouse gases into the environment each year.

The environmental community dismisses the plan for voluntary reductions in greenhouse gas intensity as business as usual. Because the measures suggest decreases in the rate of growth of greenhouse gas emissions—rather than actual reductions—the policy on its own will actually increase greenhouse emissions 14 percent by 2012, says Dan Lashof, a climate scientist with the Natural Resources Defense Council.

Jerry Mahlman, a climate scientist with the National Center for Atmospheric Research, says scientists cannot predict exactly how much carbon in the atmosphere will tip off a catastrophic cascade of climate change, or what exactly the effects will be in any given region. But, he says, the future is here: Since carbon dioxide remains in the atmosphere for at least 100 years, past emissions have already committed the world to significant future climate change.

And censoring the science won't make it go away. ■

CEI Reply:

The Editor
In These Times

Dear Editor.

6/10/03

CEQ 004959

Message

Your article, The "K" Word (May 19), accuses the Competitive Enterprise Institute of trying to "censor the science" about global climate change by asking that the Federal Data Quality Act be enforced over the administration's National Assessment on Climate Change. Nothing could be further from the truth.

People who want to really inform themselves about the state of scientific debate over the climate need to keep up to date with the science itself. The nature of science is that it changes as more information becomes available. It makes no sense to try to say the science is settled and pickle it in aspic. Your writer's alarmism over rising sea levels is a case in point. Far from suggesting a catastrophic rise from 4 to 40 inches (the margin of error alone there should suggest caution), scientists are now saying things like "It is now widely agreed that major loss of grounded ice [in the West Antarctic ice sheet] and accelerated sea level rise are very unlikely during the 21st century." That's the Intergovernmental Panel on Climate Change talking there, by the way.

Yet the National Assessment wasn't even decent science when it was written. One of the two models it was based on had less predictive power than a table of random numbers. The other predicted extreme precipitation in North America, and was clearly outside the mainstream of the developing science. That's why the report was discredited by scientists themselves. It would be simply irresponsible to continue to refer to such a document. Far from censoring science, our actions champion it.

Sincerely,

Iain Murray,
Senior Fellow, CEI

Iain Murray
Senior Fellow, Competitive Enterprise Institute
1001 Connecticut Avenue, NW, Suite 1250
Washington DC 20036
202.331.1010 Tel
202.331.0640 Fax
<http://www.cei.org>
++++++

Harper's Magazine

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Sunday, June 1, 2003

Volume 306, Issue 1837; ISSN: 0017-789X

6/10/2003

Message

One-act farce

Bryant Urstadt

Where can a corporate lobbyist hide thirty-two lines of stealth legislation? Right here, between a land transfer to the Gerald R. Ford Foundation and some details about cost-of-living allowances at the Office of Personnel Management, on pages 153 and 154 of the 712-page federal budget for the year 2001. Christened the "Data Quality Act"-one of the many euphemisms employed by the law's supporters-Section 515 presents itself as an innocuous call for federal agencies to improve the accuracy of their data. But the act, which became effective in October 2002, is in fact designed to encumber those agencies and, over time, to hamper their ability to regulate. Passed with no debate and with little public scrutiny, the law is intended not to improve data but, through constant contention, to suppress it.

Although technically an extension of the Paperwork Reduction Act, the Data Quality Act forces regulatory agencies to produce reams of extra paperwork. The act required that the Office of Management and Budget issue guidelines "ensuring and maximizing the quality, objectivity, utility, and integrity of information . . . disseminated by Federal agencies." When the OMB released these guidelines in February 2002, they consumed some 10,000 words and included definitions of the terms at issue. (Philosophers may be interested to know that "quality" now is officially "an encompassing term comprising utility, objectivity, and integrity.") By October 2002 the individual agencies were required to produce their own guidelines and, more important, to establish "administrative mechanisms" to respond to, keep track of, and deliver reports on any complaints concerning the objectivity, utility, and integrity of their data. If disputed information is found to be out of compliance with these vague requirements, it may now be struck from government use.

Who would conceive of such a thing? As the only person listed in the act, the director of the OMB-Mitch Daniels Jr., previously a senior vice president at pharmaceutical giant Eli Lilly-would be a natural guess, but an inaccurate one. Nominally, the act's sponsoring representative was Jo Ann Emerson, Republican of Missouri, a former lobbyist who gained her seat in 1996 after the death of her husband, eight-term congressman Bill Emerson, from lung cancer. But in reality, the act was written by Jim Tozzi, a current lobbyist whose clients include such corporate citizens as Philip Morris, Bridgestone/Firestone, and Synagro Technologies, a leading disposer of sewage sludge. For Tozzi, the act is the opening salvo of his latest venture, the Center for Regulatory Effectiveness, a

6/10/2003

CEQ 004961

Message

for-profit lobbying group whose actual purpose is to render regulations ineffective.

For data to be "objective" under the OMB's definition, independent scientists should agree on its validity. In practice, this offers limitless opportunity for complaint, because a friendly scientist can always be found to dispute an inconvenient finding. The Competitive Enterprise Institute, for example, has filed a petition under the act demanding that all references to the National Assessment on Climate Change, which affirmed the existence of global warming, be expunged. The CEI's filing leans heavily on Patrick Michaels, a scientist who has argued for years against global warming on behalf of corporations, most recently through the "Greening Earth Society," which is funded by the coal industry. Jim Tozzi himself has used the act to demand that the EPA rescind statements about the reproductive effects of atrazine, an herbicide made by his client Syngenta. Tozzi's filing draws on studies paid for by Syngenta and peer-reviewed by a group called EcoRisk, which was founded, according to its website, "with the encouragement [sic] and support of various . . . private chemical corporations." EcoRisk deems the EPA's data irreproducible.

The agencies will report to John D. Graham, the administrator of the OMB's information and regulation division. Previously, Graham was the founding director of the Harvard Center for Risk Analysis, the bulk of whose funding comes not from Harvard but from more than 100 corporations. The center's "risk analysis" is chiefly economic, and with few exceptions it has argued that the risks posed by corporate products or pollution are outweighed by the evils of regulation. For example, in 2000, after AT&T Wireless gave \$300,000 to study the dangers of handheld cellphone use while driving, the center found that no regulations were warranted. In elaborating on the OMB's guidelines, Graham has demanded special scrutiny for "influential" data-i.e., data that might prompt regulation-and has noted that even peer review by a scientific journal may not be sufficient to prove quality.

Finally conservatives and corporate lobbyists have found a bureaucracy they like. With the law in effect, its author, Jim Tozzi, now can devote himself to filing complaints under it. Beyond his attack on the EPA's atrazine study, he has also come to the aid of Bridgestone/Firestone, Goodyear, and the Rubber Manufacturers Association against the National Highway and Traffic Safety Administration, which is planning to distribute information about tire defects. In his petition, Tozzi demands pre-dissemination review by the manufacturers themselves-perhaps this is "integrity"-and argues, under the "utility" clause, that NHTSA must actually prove that releasing data about unsafe tires is useful. The end result: more paperwork, less information, weaker controls on manufacturers, and fewer safeguards for the public. This, to corporations, is "quality" legislation.

Bryant Urstadt has written for The Baffler, the New York Times, The New Yorker, and other publications. He lives in Guilford, Connecticut.

6/10/2003

CEQ 004962

Message

CEI Reply:

The Editor,
Harper's Magazine

Dear Editor,

In your article One-act Farce (June 1), you allege that the Competitive Enterprise Institute's Petition under the Federal Data Quality Act to cease dissemination of the National Assessment on Climate Change was based on us "finding" a "friendly scientist to dispute an inconvenient finding." This is a serious accusation that does not fit with the scientific evidence, and I hope you will allow me to set the record straight.

The National Assessment is now widely agreed to be based on shoddy science. Rather than us "finding" him, the academic you refer to, Patrick Michaels of the University of Virginia, was actually part of the Assessment's peer review process. He demonstrated conclusively that the computer models central to the Assessment's case did a poorer job of predicting temperature record for the past 100 years than "a table of random numbers." One of the computer models used to predict regional climate impacts was provided by the Hadley Centre in England, which admitted in a published paper that, "scenarios based on global models will fail to capture the regional detail needed for vulnerability assessments at a national level."

Tom Karl, co-chair of the Assessment Team, took the results so seriously that he commissioned an independent evaluation of Professor Michaels' tests. This evaluation, however, was more inclusive, using four different averages of the US annual temperature, and it verified that both models produced no better results than randomness. This is clearly not a sound basis for reaching public policy decisions, and it is precisely the sort of thing the Federal Data Quality Act was designed to stop.

Nor is Professor Michaels alone in his criticisms. Our Petition under the Act mentions the objections of four other respected scientists, not to mention the objections of another four peer reviewers working for the national laboratories who testified that the peer review process itself was inadequate for such an important document.

These are questions of considered scientific judgment. They present a very different picture from that presented in your article. In our Petition, CEI is acting to preserve the integrity of the scientific process.

Sincerely,

Iain Murray,
Senior Fellow, CEI

Iain Murray
Senior Fellow, Competitive Enterprise Institute
1001 Connecticut Avenue, NW, Suite 1250
Washington DC 20036
202.331.1010 Tel
202.331.0640 Fax
<http://www.cei.org>

6/10/2003

CEQ 004963



Natalie Towcimak

06/11/2003 10:40:23 AM



Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP, Bryan J. Hannegan/CEQ/EOP@EOP
cc: Kenneth L. Peel/CEQ/EOP@EOP, Kameran L. Onley/CEQ/EOP@EOP
Subject: Part 2 of Climate Change Science Program Strategic Plan

See below...

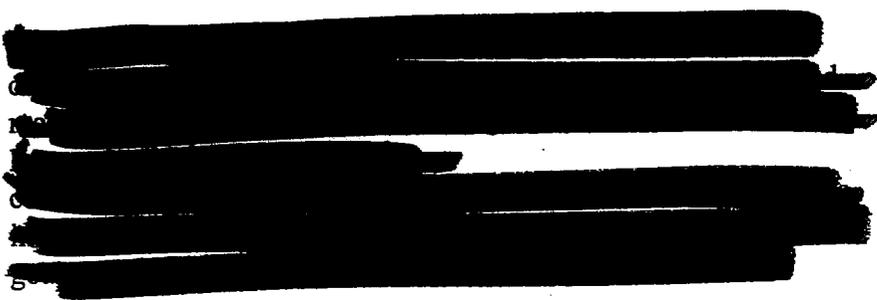
----- Forwarded by Natalie Towcimak/CEQ/EOP on 06/11/2003 10:39 AM -----

From: E. Holly Fitter on 06/11/2003 10:36:22 AM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: John D. Bumim/OMB/EOP@EOP, James J. Jukes/OMB/EOP@EOP
Subject: Part 2 of Climate Change Science Program Strategic Plan

Attached are chapters 10-16 of the Climate Change Science Program for review. Please provide all comments on the entire package (chapters 1-16) no later than noon, Monday June 16 directly to ERIN WUCHTE e-mail:
Erin Wuchte/OMB/EOP



203

[REDACTED]

 - CCSPplanFD_Text(ch10-16).pdf

LRM ID: EHF93A

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
Washington, D.C. 20503-0001

Wednesday, June 11, 2003

LEGISLATIVE REFERRAL MEMORANDUM

TO: Legislative Liaison Officer - See Distribution
below
FROM: John D. Burnim (for) Assistant Director for
Legislative Reference
OMB CONTACT: Erin Wuchte
PHONE: (202)395-3452 FAX: (202)395-1150
SUBJECT: COMMERCE Report on Climate Change
Science Program Strategic Plan
DEADLINE: 12:00 NOON Monday, June 16, 2003

DISTRIBUTION LIST

- AGENCIES:**
019-Council on Environmental Quality - Debbie S. Fiddelke - (202) 456-3908
029-DEFENSE - Vic Bernson - (703) 697-1305
032-ENERGY - Al Beer - (202) 586-4312
033-Environmental Protection Agency - Edward Krenik - (202) 564-5200

025-COMMERCE - Michael A. Levitt - (202) 482-3151
052-HEALTH & HUMAN SERVICES - Sondra S. Wallace - (202)
690-7773
059-INTERIOR - Jane Lyder - (202) 208-4371
007-AGRICULTURE - Jacquelyn Chandler - (202) 720-1272
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069-National Aeronautics and Space Administration - Charles T. Homer
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008-US Agency for International Development - Jan W. Miller - (202)
712-4174
109-Smithsonian Institution - Nell Payne - (202) 357-2962
095-Office of Science and Technology Policy - Maureen O'Brien - (202)
456-6037

Message Sent

To: _____



Natalie Towcimak

06/11/2003 10:40:23 AM



Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP, Bryan J. Hannegan/CEQ/EOP@EOP
cc: Kenneth L. Peel/CEQ/EOP@EOP, Kameran L. Onley/CEQ/EOP@EOP
Subject: Part 2 of Climate Change Science Program Strategic Plan

See below...

----- Forwarded by Natalie Towcimak/CEQ/EOP on 06/11/2003 10:39 AM -----

From: E. Holly Fitter on 06/11/2003 10:36:22 AM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: John D. Burnim/OMB/EOP@EOP, James J. Jukes/OMB/EOP@EOP
Subject: Part 2 of Climate Change Science Program Strategic Plan

Attached are chapters 10-16 of the Climate Change Science Program for review. Please provide all comments on the entire package (chapters 1-16) no later than noon, Monday June 16 directly to ERIN WUCHTE e-mail: Erin Wuchte/OMB/EOP



205

[REDACTED]



- CCSPplanFD_Text(ch10-16).pdf

LRM ID: EHF93A

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
Washington, D.C. 20503-0001

Wednesday, June 11, 2003

LEGISLATIVE REFERRAL MEMORANDUM

TO: Legislative Liaison Officer - See Distribution
below
FROM: John D. Burnim (for) Assistant Director for
Legislative Reference
OMB CONTACT: Erin Wuchte
PHONE: (202)395-3452 FAX: (202)395-1150
SUBJECT: COMMERCE Report on Climate Change
Science Program Strategic Plan
DEADLINE: 12:00 NOON Monday, June 16, 2003

DISTRIBUTION LIST

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033-Environmental Protection Agency - Edward Krenik - (202) 564-5200

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456-6037

Message Sent

To: _____

From: Bryan J. Hannegan on 06/16/2003 08:05:05 PM

Record Type: Record

To: Erin Wuchte/OMB/EOP@EOP, E. Holly Fitter/OMB/EOP@EOP
cc: Phil Cooney/CEQ/EOP@EOP, Natalie Towcimak/CEQ/EOP@EOP
bcc: Records Management@EOP
Subject: FINAL COMPLETE CEQ Comments on CCSP Strategic Plan 



gcpcstratplan603.d

Attached are CEQ's final, complete comments on ALL chapters of the draft Climate Change Science Program Strategic Plan.

Please disregard prior, incomplete messages sent earlier today. Apologies for the delay in getting you our complete comments.

Bryan Hannegan
CEQ

LRM ID: EHF93

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
Washington, D.C. 20503-0001

Tuesday, June 3, 2003

LEGISLATIVE REFERRAL MEMORANDUM

TO: Legislative Liaison Officer - See Distribution below

FROM: John D. Burnim (for) Assistant Director for Legislative Reference

OMB CONTACT: Erin Wuchte

PHONE: (202)395-3452 FAX: (202)395-1150

SUBJECT: COMMERCE Report on Climate Change Science
Program Strategic Plan

DEADLINE: 10:00 AM Tuesday, June 10, 2003

DISTRIBUTION LIST

AGENCIES:

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033-Environmental Protection Agency - Edward Krenik - (202) 564-5200
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712-4174
109-Smithsonian Institution - Nell Payne - (202) 357-2962
095-Office of Science and Technology Policy - Maureen O'Brien - (202)
456-6037



Dana M. Perino

06/18/2003 06:12:17 PM

CEQ
242 PC

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP

cc:

Subject: NY Times

----- Forwarded by Dana M. Perino/CEQ/EOP on 06/18/2003 06:12 PM -----



Agen.Jarrold@epamail.epa.gov

06/18/2003 05:28:51 PM

Record Type: Record

To: Dana M. Perino/CEQ/EOP@EOP

cc:

Subject: NY Times

I was told that these may be the documents which were given to the NY Times. I dont beleive the second attachement was sent to CEQ.

(See attached file: WHedits 4-25-03-colors.doc) (See attached file: climatechangerev2.wpd)



- WHedits 4-25-03-colors.doc



- climatechangerev2.wpd

002163

CEQ 004976

CEQ
237 PL

• Dana M. Perino 06/18/2003 06:49:35 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP
cc:
Subject: Re: RoE/INSIDE EPA article today

----- Forwarded by Dana M. Perino/CEQ/EOP on 06/18/2003 06:49 PM -----



Harrison.Lisa@epamail.epa.gov
06/18/2003 06:39:13 PM

Record Type: Record

To: Doyle.Brendan@epamail.epa.gov
cc: See the distribution list at the bottom of this message
Subject: Re: RoE/INSIDE EPA article today

didn't return calls seeking comment? who'd they call? not OPA, as we DO have a comment...

Brendan Doyle

06/18/2003 05:38
Ackerman/DC/USEPA/US@EPA,
PM
Harrison/DC/USEPA/US@EPA

To: Jarrod
Agen/DC/USEPA/US@EPA,
brown.michael@epa.gov, Suzanne
Diane Esanu, Lisa
cc: Daiva
Balkus/DC/USEPA/US@EPA, Sonia
Altieri/DC/USEPA/US@EPA
Subject: RoE/INSIDE EPA
article today

FYI...part of this story stems from the NACEPT's advice letter that was mentioned in OCEM's FR notice this week.....

Brendan Doyle
Director, Outreach and Communications Staff
OEI/OPRO (2811R)
US EPA

002158

CEQ 004978

1200 Pennsylvania Avenue, NW
Washington, DC 20460
PHONE: 202/564-6935
FAX: 202/565-2441

e-mail: doyle.brendan@epa.gov

----- Forwarded by Brendan Doyle/DC/USEPA/US on 06/18/2003 05:45 PM

Steve Young

06/18/2003 05:37

Adams/DC/USEPA/US@EPA, Brendan
PM

To: Mike
Flynn/DC/USEPA/US@EPA, Heather
Case/DC/USEPA/US@EPA, Steve
Doyle/DC/USEPA/US@EPA
cc:
Subject: FWD: On RoE:
insideepa.com document
["climate"
issue]

----- Forwarded by Steve Young/DC/USEPA/US on 06/18/2003 05:38 PM -----

Emma
McNamara/DC/USEPA
Young/DC/USEPA/US@EPA
/US@EPA

To: Steve
cc:
Subject: insideepa.com

document
06/18/2003 04:39
PM

http://insideepa.com/secure/docnum.asp?f=epa_2001.ask&docnum=6182003_omb

Wednesday, June 18, 2003

EPA Drops Climate Data From 'State of Environment' Report After Fight
With OMB

EPA has apparently decided to drop all data regarding global warming

CEQ 004979

from an upcoming "State of the Environment" report after the agency and the White House's Office of Management and Budget (OMB) sparred over how to portray climate change trends in the report, which is slated for release June 23. Agency officials have been touting the report as one of outgoing EPA Administrator Christine Todd Whitman's final initiatives, laying out the accomplishments of the Bush administration.

But one environmentalist says EPA apparently decided to remove the section on global warming after OMB distorted the language during a review of the report, saying EPA decided "it was probably better to remove it than to have it say something distorted."

EPA did not return calls seeking comment.

The report stems from an initiative championed by Whitman to provide information on actual environmental conditions, that will be released days before Whitman's departure at the end of June. Sources have already said that use of the report's findings are uncertain given Whitman's departure.

Sources tracking the issue have said the report is a landmark document because it is the first time the agency has attempted to comprehensively develop a set of environmental indicators that provide information on the state of various environmental media, including land, water and air..

This spring, EPA and OMB had reportedly been debating how to describe trends in temperature changes in the report. Sources said OMB was reluctant to have the agency include information showing climate change represents a serious problem.

But now, according to draft comments on the report prepared by EPA's National Advisory Council for Environmental Policy and Technology (NACEPT), the agency has entirely eliminated the global warming data. "We were advised that data related to global warming issue were not in the report. EPA will need to be prepared to address why the report does not include global climate change, greenhouse gases, and other major issues," the comments say.

EPA did not provide the report to NACEPT to review, the comments say. The NACEPT's comments were prepared based on a briefing from information chief Kim Nelson.

Environmental groups say they are not surprised by the anticipated omission, given the Bush administration's skepticism about global warming and controversial decision to withdraw from the Kyoto treaty. But one source says it is still "pretty shocking" the agency is releasing a report on the state of the environment that fails to discuss the major issue of climate change. The source says it is part of "a pattern of suppressing information that is contrary to the administration's pre-determined policy view" that major new actions are not needed to address global warming.

The source notes that previous federal reports on the environment, such as reports released by the White House Council on Environmental Quality throughout the 1980s that addressed the issue of global warming "as a significant factor affecting the state of the environment." That history makes EPA's decision to leave out such discussion in its state of the environment report "kind of like going to the doctor and not having your blood pressure taken," the source says.

Meanwhile, the NACEPT says EPA must consider the report's intended

audience, how to portray what it does and does not contain, and how to act on the findings when releasing it to the public.

"At release, EPA will need to clearly inform both the intended audiences and the general public why the report was developed and what it is intended to convey," the NACEPT says. For instance, the NACEPT says, the report raises questions such as "is the report intended to convey agency policies or comment on the success of such policies [and] is the report intended to be a 'snapshot' of the environment or will it provide trend data to show the health of the environment has changed over time?"

The NACEPT's comments also tell EPA to address how the report relates to state and local environmental programs, since the report is national in scale. "To address localized concerns of the report audience, EPA should concurrently provide access to equivalent information on state and local scales. Similarly, the report should acknowledge international environmental issues, such as climate changes and trans-boundary pollution, to provide the appropriate context for judging the health of the U.S. environment."

The NACEPT also says EPA must provide information regarding why certain information was included while other data were excluded. "EPA will need to clearly describe the filtering process used to select information for inclusion in the report." For instance, EPA should explain which environmental indicators were excluded even though the agency collected data for them, like global warming, and why they were excluded, which indicators the agency wanted to include but could not because of data gaps, and how EPA will address data gaps.

Date: June 18, 2003
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6182003_omb

Message Copied To:

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altieri.sonia@epamail.epa.gov
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562495

Michelle Hiller
Donna DeLeon

U.S. States Senate
WASHINGTON, DC 20510

CEQ
201 PC

June 19, 2003

President George W. Bush
The White House
1600 Pennsylvania Avenue NW
Washington, DC 20500

Dear President Bush:

We are deeply disturbed to read reports this morning that the Environmental Protection Agency (EPA) and the White House have decided to omit data and language pertaining to climate change from the Agency's upcoming "State of the Environment" report. We would like to know if this is true.

According to these reports, the White House Council on Environmental Quality (CEQ) and the Office of Management and Budget (OMB) made decisions to delete from the "State of the Environment" report scientifically sound, consensus-based conclusions about the human contributions to global warming that have been confirmed by the National Research Council and the Intergovernmental Panel on Climate Change. We would like to know why, and who within the Administration made this decision.

Perhaps most distressing are reports that Administration officials substituted into the report for the deleted language a reference to a study partially funded by the American Petroleum Institute that questions the National Research Council's conclusions.

If true, this action brings into question the ability and authority of the EPA or any agency within this Administration to publish unbiased scientific reports. This would dramatically weaken both Congressional and public confidence in the Administration to allow credible, peer-reviewed study to prevail over political agenda. If these reports are accurate, your Administration has done a serious disservice not only to the hard-working professionals at the EPA, but also to the American people and our future.

We request all drafts of the report as well as comments prepared by the EPA, OMB, and CEQ. We request a list of all participants involved in review of the document, including all Administration officials and entities outside the Administration. Furthermore, we ask that appropriate actions be taken regarding those responsible for doctoring this report.

Sincerely,

Jim Jeffords
James M. Jeffords
Ranking Member,
Environment and Public Works Committee

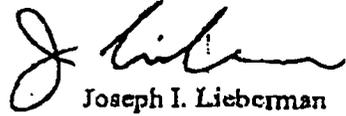
Bob Graham
Bob Graham
Ranking Member, Subcommittee on
Fisheries, Wildlife and Water

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JUN 20 2003
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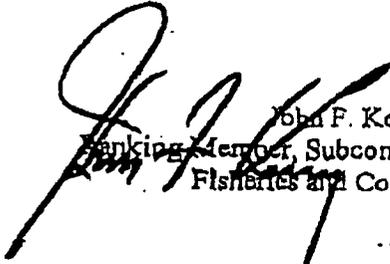
1178114

President George W. Bush
June 19, 2003

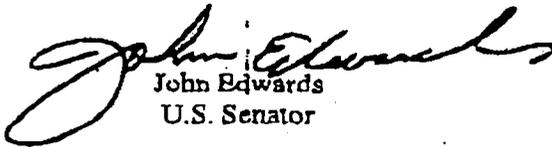
Page 2



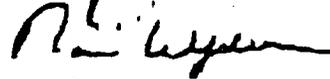
Joseph I. Lieberman
Ranking Member,
Governmental Affairs Committee



John F. Kerry
Ranking Member, Subcommittee on Oceans,
Fisheries and Coast Guard



John Edwards
U.S. Senator



Ron Wyden
Ranking Member, Subcommittee on Public
Lands and Forests



Barbara Boxer
Ranking Member, Subcommittee on
Superfund and Waste Management



Phil Cooney
06/21/2003 10:54:00 AM

Record Type: Record

To: James Connaughton/CEQ/EOP@EOP, Dana M. Perino/CEQ/EOP@EOP, Kenneth L. Peal/CEQ/EOP@EOP, Kameron L. Onley/CEQ/EOP@EOP

cc:

Subject: FYI: Excerpt from Pew Report on Health and climate (December 2000)

"This report on the effects of climate change on human health in the United States finds that the complexity of the pathways by which climate affects health represents a major obstacle to predicting how, when, where, and to what extent global climate change may influence human well-being."

Pew Center on Climate Change

www.pewclimate.org

Khary I. Cauthen
06/23/2003 03:03:50 PM

CEQ
247 PC

Record Type: Record

To: Dana M. Perino/CEQ/EOP@EOP, Elizabeth A. Stolpe/CEQ/EOP@EOP, Bryan J. Hannegan/CEQ/EOP@EOP

cc: Phil Cooney/CEQ/EOP@EOP

Subject: Ponderous that the same paper ran both of these together----

The Atlanta Journal and Constitution June 23, 2003 Monday

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<http://www.ajc.com>

The Atlanta Journal and Constitution

June 23, 2003 Monday Home Edition

SECTION: Editorial; Pg. 10A

LENGTH: 640 words

HEADLINE: OUR OPINIONS: Give EPA heat for hiding facts on global warming

SOURCE: AJC

BODY:

There is a dangerous pattern emerging from the Bush administration: If the facts don't suit President Bush's policies, distort them.

Public attention has already been focused on charges that Bush and his aides hyped intelligence on Iraq's weapons of mass destruction. Two congressional committees are investigating.

Now comes news that an important Environmental Protection Agency report leaves out critical scientific facts on global warming --- even facts confirmed by a special study requested by the president himself last year. That study substantiated the Earth's alarming temperature increase over the last decade and its major cause, increased carbon dioxide emissions from the burning of fossil fuels. The biggest sources are automobiles and coal-fired utilities.

The White House Council on Environmental Quality and Bush budget officials changed the global warming section of a comprehensive report on the nation's environmental challenges to be issued by the EPA next week. The report was the final contribution of EPA chief Christie Whitman, who is stepping down as agency administrator.

002168

CEQ 004988

Whitman, who came to her post with a good record on environmental issues, continued her habit of turning the other cheek whenever the White House slaps down science in favor of its corporate oil friends. She said she is "comfortable" with the report.

Ironically, Whitman suffered her first embarrassment on the global warming issue shortly after she was sworn in, when she assured the international community that the United States was serious about its commitment to carbon dioxide reductions, only to have Bush rescind the U.S. signature to the global warming treaty. It is sad that in her last week at the agency, the departing EPA chief must suffer a similar embarrassment.

Among the deletions were conclusions about the human contribution to global warming from the 2001 National Research Council report the White House commissioned (after rejecting similar conclusions by a United Nations panel of scientists), one that Bush previously endorsed in several speeches. White House officials also deleted a reference to a 1999 study by a respected panel of scientists showing that global temperatures had gone up sharply in the last decade compared with levels over the past 1,000 years. Instead, Bush officials added a reference to a new study, partly financed by the American Petroleum Institute, questioning that conclusion.

Deleted from the report, for example, is even the simple statement upon which scientists agree: "Climate change has global consequences for human health and the environment." That statement is replaced with one meant to obfuscate and confuse; it cites the complexities of the issue and the need to resolve uncertainties. The White House changes were so extensive, according to an April 29 EPA staff memo given to the media by a former EPA official, that the report's climate section "no longer accurately represents scientific consensus on climate change."

The president's refusal to face the facts on global warming cannot be construed as anything other than blatant pandering to his friends in Big Oil. They have spent years minimizing scientific facts and refusing to concede the need for conservation and alternative energy sources that could save our children from serious economic and environmental consequences.

Sen. Jim Jeffords (I-Vt.), the ranking minority member on the Senate Environment and Public Works committee, along with several Democratic committee members, has asked the White House for the original drafts of the climate change section. Members on both sides of the aisle are obligated to find out to what extent the American people are being misled on a matter at least as important to the future security of the nation as Iraq's weapons of mass destruction.

 p;

The Atlanta Journal and Constitution June 23, 2003 Monday

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<http://www.ajc.com>

The Atlanta Journal and Constitution

June 23, 2003 Monday Home Edition

SECTION: Editorial; Pg. 11A

LENGTH: 469 words

HEADLINE: EQUAL TIME: Nature, not man, to blame for warmer climate

BYLINE: ROBERT GRECO

SOURCE: For the Journal-Constitution

BODY:

It is true that the American Petroleum Institute helped sponsor the groundbreaking research referred to in The New York Times story on global warming. But API's role was relatively small. Most of the funding for the research came from several federal agencies, including NASA, the U.S. Air Force and the National Oceanic and Atmospheric Administration.

But focusing on the funding misses the point. Much more important is the critical substance of the research itself, which was done by two eminent scientists, Willie Soon and Sallie Baliunas of the Harvard-Smithsonian Center for Astrophysics in Cambridge, Mass.

Their analysis suggests that the world was as warm or warmer between 800 A.D. and 1300 A.D. as in the late 20th century. If that's true --- and it appears to be --- nature was more important than cars or coal-fired utilities in causing higher temperatures in that era.

Their work found that the warming experienced in the late 20th century was not unusual. They analyzed 240 separate studies of tree rings, ice cores, stalactites, coral, glaciers and other sources, including cultural and documentary records going back over 1,000 years.

Their conclusions are important because for a decade, the debate surrounding global climate change has assumed that significant increases in temperature occurred only during the final decades of the 20th century when fossil fuels became the main source of energy for mankind.

That has been the conclusion of the United Nations' scientific arm, the International Panel on Climate Change, which says that human activity is largely to blame for producing the greenhouse gases that drive temperatures up.

Until now, the United Nations' work has set the agenda for much of the debate about climate change. Its report constructed a mathematical temperature model based on a single tree-ring study of data collected mostly from Northern Hemisphere locations.

Baliunas and Soon found that warming during the 20th century was neither unique nor as extreme as during those earlier simpler times when world population was less than one-tenth of

what it is today, and the Industrial Revolution was yet to come.

In other words, emissions caused by people were minimal. So, if climate was changing naturally and significantly hundreds of years ago, how do we know that forces of nature are not the main causes of climate change today?

And how do we distinguish natural climate change from that possibly caused by emissions from the internal combustion engine, or the burning of coal to generate electricity?

Intelligent discussion of the science surrounding climate change will help all of us to set the right public policies on this highly complex issue.

Robert Greco is director of global climate programs for the American Petroleum Institute.

&nb sp;

The Atlanta Journal and Constitution June 23, 2003 Monday

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<http://www.ajc.com>

The Atlanta Journal and Constitution

CEQ
249 PK

 Phil Cooney
06/25/2003 09:39:34 AM

Record Type: Record

To: Dana M. Perino/CEQ/EOP@EOP
cc:
bcc: Records Management@EOP
Subject: Re: FYI: One more story on climate flap 

It's at www.mediaresearch.org --was mentioned in today's clips. Phil
Dana M. Perino 06/25/2003 09:29:01 AM


● Dana M. Perino 06/25/2003 09:29:01 AM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP
cc:
bcc:
Subject: Re: FYI: One more story on climate flap 

do you know where this ran?
Phil Cooney

 Phil Cooney
06/25/2003 09:26:38 AM

Record Type: Record

To: See the distribution list at the bottom of this message
cc:
Subject: FYI: One more story on climate flap

More Greenhouse Gaseousness

by L. Brent Bozell III
June 24, 2003

The Jayson Blair fiasco has not affected the power of The New York Times. The Newspaper of Record still can start an avalanche of liberal spin on television. Its front page can still launch a thousand ships with cannons trained on any conservative influence that surfaces in the Washington policy arena.

On June 19, the Times devoted part of its front page to a leak from a disgruntled environmental bureaucrat.

002170

CEQ 004993

The scoop? The Environmental Protection Agency's forthcoming report on the state of the environment had been edited by the White House, and "a long section describing risks from rising global temperatures has been whittled to a few noncommittal paragraphs."

So what? Our government churns tons of paper each year for Washington reporters to consider or ignore. Even those tons of paper edited by the White House are usually too massive to trouble the scholars of the press. What is new about an executive branch report being revised by the chief executive's team? It's just a report, not a bill before Congress, or an executive order, or a new set of regulations.

If you were a liberal environmentalist, you'd think otherwise.

Which explains the network reaction. ABC, CBS, CNN, NBC, and CNBC all lunged for the Times scooplet. How predictable: leak something to liberal reporters in advance, and suggest that the White House is in disarray and conflict due to obnoxious conservatives, and you're headed for the spotlights at a mile a minute.

To hear the networks tell this tale, there aren't liberals and conservatives in this policy battle. There aren't scientific boosters of global warming theory on one side and scientific skeptics on the other. No, liberalism for the purposes of this news cycle was packaged as the essence of nonpartisanship, idealism, sound science, the public interest, and the well-being of small children and bunnies. The conservative perspective was, naturally, the opposite: partisan, unscientific, cynical, bought and paid for by arrogant corporate polluters.

It's all in a night's work of fairness and balance.

ABC's Barry Serafin groaned that "Environmentalists are angry about what they regard as science pushed aside by politics." Dan Rather laid it on thick, saying the greens were "taking the President to task for what they say was the cynical changing of a major report on global warming. They say it was altered to put hardball partisan politics over hard independent science." At NBC, David Gregory was already counting the liberals (they weren't called that, of course) as winners: "The flap over this new report gives new ammunition to administration critics, both here and abroad, who contend the President has ignored the threat of global warming to appease corporate polluters opposed to more environmental regulation."

In case you thought those stories were a little too tame, there was CNN's "NewsNight" at 10. Anchor Aaron Brown began: "Once upon a time a scientist named Galileo said the Earth was round and the political leaders of the time said 'no, no Galileo it's flat.' And Galileo got life under house arrest for his little theory." Today, he proclaimed, the "vast majority" of scientists say global warming is real, and "if the charges leveled against the White House are true, an important environmental question is being twisted or ignored for the sake of politics."

If newscasts were cars, CNN would be facing a recall. Galileo did not argue the world was round, not flat. He was condemned for suggesting the earth revolved around the sun, not the other way around.

Liberals love casting themselves as Galileo, as they have also done repeatedly in the arguments over cloning and stem cell research. They are Science; conservatives, Unreason. But reporters are supposed to project objectivity, not endorsements of one scientific/political cause and denunciations of the other as an industry-funded fraud. Nearly every news story touts the "scientific consensus" behind the need for big energy taxes and regulations, as if assembling a numerical majority, not the testing of hypotheses, was the basis of sound science.

It is possible that the scientists that will be proven correct – the Galileo stand-ins for the 21st century – are the scientists skeptical of the doom-and-gloom assessment. More than 17,000 scientists have signed a petition against the proposed Kyoto Accord. Don't forget that the Senate voted 95 to 0 during the Clinton years to reject the treaty's onerous burdens on the United States while "developing" nations faced no energy limitations.

That's an entirely different consensus. But the media are too warm and comfy in the green lobby's pocket to consider a more objective, less demonizing portrait of competing environmental visions. They would like to pretend it's only President Bush and his conservative pollution-loving friends that ever need to face the harsh winds of controversy over the prospect of global warming. They aren't making news stories. They're making political cartoons.

Message Sent To:

Dana M. Perino/CEQ/EOP@EOP
James Connaughton/CEQ/EOP@EOP
Debbie S. Fiddelke/CEQ/EOP@EOP
Bryan J. Hannegan/CEQ/EOP@EOP
Kameron L. Onley/CEQ/EOP@EOP
Kenneth L. Peel/CEQ/EOP@EOP
Joel D. Kaplan/WHO/EOP@Exchange@EOP
Jay P. Lefkowitz/OPD/EOP@Exchange@EOP
Kevin M. O'Donovan/OVP/EOP@Exchange@EOP
David Halpern/OSTP/EOP@EOP
Kathie L. Oisen/OSTP/EOP@EOP
Robert C. McNally/OPD/EOP@EOP
Allison Boyd/OPD/EOP@Exchange@EOP
Matthew Koch/WHO/EOP@EOP

CEQ
238 PL

 Kathie L. Olsen
06/25/2003 10:00:13 AM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP
cc: John H. Marburger/OSTP/EOP@EOP
bcc:
Subject: Re: FYI: One more story on climate flap 

Thank you this is amusing and I will probably send it to Dr. Hanson given his treatment!
k

Phil Cooney

 Phil Cooney
06/25/2003 09:26:38 AM

Record Type: Record

To: See the distribution list at the bottom of this message
cc:
Subject: FYI: One more story on climate flap

More Greenhouse Gaseousness

by L. Brent Bozell III
June 24, 2003

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002159

CEQ 004997

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Message Sent To:

Dana M. Perino/CEQ/EOP@EOP
James Connaughton/CEQ/EOP@EOP
Debbie S. Fiddelke/CEQ/EOP@EOP
Bryan J. Hannegan/CEQ/EOP@EOP
Kameron L. Onley/CEQ/EOP@EOP
Kenneth L. Peel/CEQ/EOP@EOP
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Jay P. Lefkowitz/OPD/EOP@Exchange@EOP
Kevin M. O'Donovan/OVP/EOP@Exchange@EOP
David Halpern/OSTP/EOP@EOP
Kathie L. Olsen/OSTP/EOP@EOP
Robert C. McNally/OPD/EOP@EOP
Allison Boyd/OPD/EOP@Exchange@EOP
Matthew Koch/WHO/EOP@EOP

12:30 CALL

From: Bryan J. Hannegan on 06/24/2003 05:59:39 PM

Record Type: Record

To: Roberta L. Conde/CEQ/EOP@EOP, Phil Cooney/CEQ/EOP@EOP

cc:

Subject: Call Memo for Jim re: 1605(b)



key issues 051603.doc call memo for jim 062503.doc

Attached is a brief one-pager for his call with Bob Card, DOE tomorrow at 12:30 pm. Also attached for his reference is the one-page list of key issues he used to chair a Deputies meeting on this topic on May 16th. At the time, the Deputies decided only to take comments on the "open issues" listed at the bottom of the page.

001549

CEQ 005001



-EXECUTIVE OFFICE OF THE PRESIDENT-

COUNCIL ON
ENVIRONMENTAL
QUALITY

730 Jackson Place, NW
Washington, DC 20503

PHONE: (202) 456-6224

FAX: (202) 456-2710

FAX: 482-6318

| | | | |
|-------|---------------|--------|-------------------------------|
| TO: | JAMES MAHONEY | | |
| FROM: | PHIL COONEY | | |
| DATE: | 6/24/03 | PAGES: | 15
(INCLUDING COVER SHEET) |

COMMENTS: [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

cc: Olsen, Halpern, Hanreagan, Peacock *Phil*

The document(s) accompanying this FAX transmission may contain information, which is confidential and/or sensitive. The information is intended only for use by the individual or entity named on this transmission sheet. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of any action in reliance on the contents of this faxed information is strictly prohibited, and that the documents should be returned to this office immediately. In this regard, if you have received this FAX in error, please notify us by telephone immediately so that we can arrange for the return of the original document(s) to us.

From: Bryan J. Hannegan on 06/30/2003 05:15:33 PM

Record Type: Record

To: David Halpern/OSTP/EOP@EOP, Erin Wuchte/OMB/EOP@EOP

cc: Phil Cooney/CEQ/EOP@EOP

Subject: Revised CCSP Executive Summary Draft Zero



new vision draft.doc

[REDACTED]

I'll be available throughout the evening via Blackberry. Thanks.

Bryan Hannegan
CEQ

CEQ 30 PC

F. JAMES SENSENBRENNER, JR., Wisconsin, CHAIRMAN

SHERWOOD L. BOEHLERT, New York
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U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE

SUITE 2320 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6301

(202) 225-6371

TTY: (202) 226-4410

http://www.house.gov/science/welcome.htm

June 28, 2000

RALPH M. HALL, Texas
Ranking Member

BART GORDON, Tennessee
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JOE BACA, California

The Honorable Neal F. Lane
Assistant to the President for Science and Technology and
Director, Office of Science and Technology Policy
Old Executive Office Building, Room 424
Washington, DC 20502

Dear Dr. Lane:

In our letter of June 7, 2000, we raised a number of issues concerning the National Assessment Synthesis Report public review process and questioned why that process did not include the regional and sectoral analyses that are used for the Report. You have yet to respond to these concerns, and, in the interim, the National Science Foundation (NSF), "on behalf of the Subcommittee on Global Change Research of the Committee on Environment and Natural Resources of the National Science and Technology Council (NSTC)," has published a "Notice of the availability of the draft version of the National Assessment Synthesis Report" in the June 12, 2000 *Federal Register* (65 F.R. 36845). This Notice announces "the availability of the draft version of the National Assessment Synthesis Report for a 60-day comment period (June 12 through August 11, 2000)."

As will be detailed below, we have major concerns about the Notice and request that the Administration: (1) promptly publish the corrected draft versions of the National Assessment Synthesis Report Overview and Foundation Report documents in the *Federal Register*, and (2) extend the public comment period to provide a minimum of 60 days thereafter.

In your December 3, 1999 reply to the Committee on Science you said in response to Question 1.7 that the National Assessment Synthesis Team (NAST) "is responsible for considering reviewer comments and preparing review memoranda that explain how the draft reports have been modified in response to such comments," and added that "a compilation of all comments received will also be maintained."

In response to question 3.1, you also said:

"Notice of the availability of the National Assessment Synthesis Report for a 60-day public comment period will be published in the Federal Register, and copies of the report will be made available to all interested parties. Copies of publications and analyses used

The Honorable Neal F. Lane
June 28, 2000
Page two

in the National Assessment Synthesis Report that are not widely accessible will be maintained at the National Assessment Coordination Office. These materials will be made available to technical reviewers and other readers upon request. Interested parties will be able to access listings of this material and request access to specific items over the Web."

In light of your assurances to this Committee, Dr. Baker's March 9 testimony before the House Science Subcommittee on Energy and Environment, and your May 17 testimony before the Senate Commerce, Science, and Transportation Committee, we believe the *Federal Register* Notice is inadequate in several ways.

First, the Notice does not establish a public docket, although it does state that sometime after receipt and collation of comments and their collection, they "will be available for public inspection weekdays during normal business hours" at the NSF library in Arlington, Virginia. However, that availability appears limited to those who make appointments in advance by telephone. That does not appear to be consistent with a public docket that is accessible to the public without appointment. Moreover, it is unclear when these comments will be available for review and copying. Please explain why no public docket has been established.

Second, the Notice makes no mention of the memoranda prepared by NAST for the first two stages of the technical peer review of the National Assessment Synthesis Report or the compilation of all comments. Also, the Notice does not explain about the availability of "publications and analyses" used in the report "that are not widely accessible" or indicate where they will be maintained and made available "to technical reviewers and other readers upon request." As noted above, your December 3, 1999 letter to the Committee said interested parties "will be able to access listings of this material and request access to specific items over the Web." Our review of the National Assessment Web site found that it neither lists these items nor explains how they can be accessed. Moreover, as you know, not all "interested parties" in the public have access to the Web. Please explain why these materials are not centrally located in a public docket and identified in the Notice as promised. Also, please explain how persons without Web access can review them and why the NAST memoranda for the first two stages and related compilation have not been made available as part of this publication. In addition, please provide copies of all NAST "review memoranda that explain how the draft reports have been modified in response to such comments," as well as a compilation of all comments received to date.

Third, even for those with Web access, the National Assessment Synthesis Report Overview Report and Foundation Report documents posted on the Web have serious deficiencies, which makes it impossible for them to have a 60-day review period. As shown in Attachment 1, the Overview Report Web site at <http://www.gcrl.org/nationalassessment/overview.html> states that "Due to an editing error, the time scale shown on the middle diagram on page 11 is

The Honorable Neal F. Lane
June 28, 2000
Page three

incorrect. A revised diagram is being prepared." Such diagram is not yet available. In addition, the Foundation Report Web site (<http://www.gcric.org/nationalassessment/foundation.html>) states that "[s]ome figures for Chapters 2, 5, 8, 16 and 17 are missing. All figures will be available shortly." (See Attachment 2.) None of these figures are yet available, nor are the six tables referenced in the Appendix to Chapter 2 ("Future Vegetation and Biogeochemical Dynamics: Scenarios for the Conterminous United States"). Finally, the *Federal Register* Notice states that the Foundation Report "contains 19 chapters detailing and documenting the findings presented in the Overview." However, as also shown in Attachment 2, the Web site only lists 17 Chapters plus an Appendix on "Research Directions," and there is no Chapter 18 ("Conclusions"). In short, the Web publication is deficient and incomplete.

Fourth, and most importantly, you said in your December 3, 1999 response that "copies of the report will be made available to all interested parties." However, the Notice does not provide for such availability, unless a member of the public has access to the Web. For others, there is but "one copy. . . available for public inspection weekdays during normal business hours" at the NSF library-in-Arlington,-Virginia,-apparently-by-appointment-only. Thus, any constituent of ours who lacks Web access would have to travel to Virginia to read the report. It is unclear how much time that constituent would have after arriving from Wisconsin or California to read it, assuming others also want to read it on the same day. Moreover, that person cannot do it over the weekend or on July 4. He or she must visit the library on a work day and make an appointment during the library's business hours.

It is our understanding from your December 3, 1999 reply that if a person requested the National Assessment Report, that person could get it freely without the need to travel to Virginia. Indeed, common sense dictates that the Administration should have published it in the *Federal Register* on June 12 in the same manner as other draft Reports to Congress are often published (e.g., "Draft Report to Congress on the Costs and Benefits of Federal Regulations," 63 F.R. 44034, Aug. 17, 1998), thereby making it readily available to the entire public for the full 60 days. It is unrealistic to expect the public to read the 145-page Overview Report and the 700-plus page Foundation Report, and to provide "detailed recommendations" on both, including suggestions for "alternative wording" pursuant to the "formatting guidelines" on the Web while visiting the NSF by appointment in Virginia on weekdays only. Making the documents "primarily" available for review through the Web, with only "one copy . . . available for public inspection during normal business hours" at the NSF library in Virginia, by appointment, is not in accord with the requirements of House Report 106-379, with the assurances provided by you in your December 3 1999 response, or with Dr. Baker's sworn testimony of March 9, 2000. The Web should not be the primary source. That should be the *Federal Register*.

We therefore request that the Administration promptly publish the corrected draft National Assessment Synthesis Report Overview Report and Foundation Report documents in the *Federal Register* and extend the public comment period to provide a minimum of 60 days thereafter,

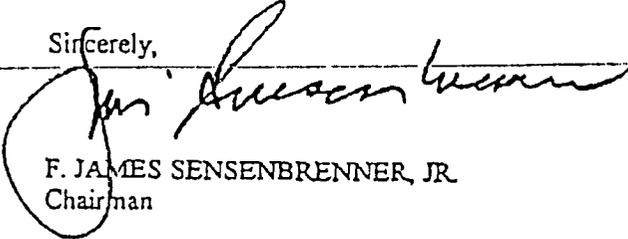
The Honorable Neal F. Lane
June 28, 2000
Page four

notwithstanding the likelihood that the "graphics" will not be able to be shown in color in the *Federal Register*. We are sure there is a way to explain by footnote those graphics without color.

As we noted in our June 7 letter, we in the Congress are the primary audience for the "Scientific Assessment" pursuant to section 106 of the Global Change Research Act of 1990, and our confidence in its quality and credibility hinges on an active review of the entire effort that meaningfully accommodates and responds to the public's knowledge and involvement.

Please respond promptly to these matters, including our request for re-publication and an extension of the public review period with your reply to our letter of June 7. Please also include this letter, our June 7 letter, and the Subcommittee on Energy and Environment's May 31 letter and attachment to Dr. Baker, together with your and Dr. Baker's replies, with the responses to the draft report.

Sincerely,



F. JAMES SENSENBRENNER, JR.
Chairman



KEN CALVERT
Chairman, Subcommittee on
Energy and Environment

Attachments

cc: The Honorable Ralph M. Hall, Ranking Minority Member, Committee on Science, U.S. House of Representatives
The Honorable D. James Baker, Administrator, National Oceanic and Atmospheric Administration and Under Secretary for Oceans and Atmosphere, U.S. Department of Commerce
The Honorable Jo Ann Emerson, U.S. House of Representatives
The Honorable Joe Knollenberg, U.S. House of Representatives
The Honorable John E. Sununu, U.S. House of Representatives

CEQ
248 PC



Michael De Alessi <dealessi@reason.org>
06/30/2003 01:25:23 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP

cc:

Subject: Reason on NPR - TODAY

Dear Philip,

Apologies for such short notice, but I've just learned that Ron Bailey - Reason's science correspondent - will be on NPR's national segment today to discuss the interplay of science and politics, with special reference to the recent move by EPA to cut out a report on climate change. Professor Jasinoff from Harvard will also be one of the guests.

The show will run today from 11-12 PDT, 2-3 EDT.

For more of Ron's work, check out www.reason.com and a transcript should be available shortly at www.npr.org

Cheers,
Michael

Michael De Alessi
Director of Natural Resource Policy
Reason Foundation
3415 S. Sepulveda Blvd., #400
Los Angeles, CA 90034
www.reason.org
www.newenvironmentalism.org

002169

CEQ 005012

From: Bryan J. Hannegan on 07/01/2003 04:41:08 PM

Record Type: Record

To: David Halpern/OSTP/EOP@EOP, Erin Wuchte/OMB/EOP@EOP

cc: Clifford J. Gabriel/OSTP/EOP@EOP, Marcus Peacock/OMB/EOP@EOP, Phil Cooney/CEQ/EOP@EOP

Subject: Final Draft – CCSP Executive Summary v.4



new ccsp exec sum draft v4

Attached is what I hope will be the final draft of a new Executive Summary to replace the "Vision" document intended as part of the Climate Change Science Program Strategic Plan. Please review ASAP and provide comments to me directly via email or phone (5-0801). We are trying to complete this by COB today. Thanks for your understanding.

Bryan Hannegan
CEQ

6/30/03

CLIMATE CHANGE RESEARCH INITIATIVE

"Today, I make our investment in science even greater. My administration will establish the U.S. Climate Change Research Initiative to study areas of uncertainty and identify priority areas where investments can make a difference.

"I'm directing my Secretary of Commerce, working with other agencies, to set priorities for additional investments in climate change research, review such investments, and to improve coordination amongst federal agencies. We will fully fund high-priority areas for climate change science over the next five years. We'll also provide resources to build climate observation systems in developing countries and encourage other developed nations to match our American commitment."

President Bush, June 11, 2001

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

0910_f_fd41h003_ceq.txt
RECORD TYPE: FEDERAL (NOTES MAIL)
CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])
CREATION DATE/TIME: 2-JUL-2003 07:22:05.00
SUBJECT:: Annexes to the plan
TO: Quesean R. Rice (CN=Quesean R. Rice/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TEXT:
QR, please print out attachments. THANKS! Phil
----- Forwarded by Phil Cooney/CEQ/EOP on 07/02/2003
07:20 AM -----

James R Mahoney <James.R.Mahoney@noaa.gov>
07/01/2003 01:39:35 PM
Record Type: Record

To: CCSP@USGCRP.GOV, CCSP_INFO@USGCRP.GOV
CC:
Subject: Annexes to the plan

Ladies and gentlemen -

A PDF text file with the annexes for the strategic plan is attached for your use. As I mentioned in my transmittal memo of last evening, this annex material is also posted on the review site along with the graphics.

Jim Mahoney

- Strat Plan Annexes 6-30-03.pdf
- James.R.Mahoney.vcf

===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert NSREOP0103:[ATTACH.D83]SREOP01300HL4DF.001 to ASCII,
The following is a HEX DUMP:

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2F5072657620323536303637203E0D737461727478726566
0D3236353531390D2525454F460D

===== END ATTACHMENT 1 =====

===== ATTACHMENT 2 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
begin:vcard
n:Mahoney;James
x-mozilla-html:FALSE
org:National Oceanic and Atmospheric Administration (NOAA)
version:2.1

0910_f_fd41h003_ceq.txt

email;internet:James.R.Mahoney@noaa.gov
title:Assistant Secretary of Commerce for Oceans and Atmosphere
adr;quoted-printable;;;U.S. Department of Commerce,=0D=0ARoom 5804,
=0D=0A14th Street & Constitution Avenue, NW;Washington;DC;20230;
fn:James R. Mahoney, Ph.D.
end:vcard

===== END ATTACHMENT 2 =====

0919_f_bj6mh003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:James R Mahoney <James.R.Mahoney@noaa.gov> (James R Mahoney
<James.R.Mahoney@noaa.gov> [UNKNOWN])

CREATION DATE/TIME: 3-JUL-2003 13:46:25.00

SUBJECT:: Secretary Evans' Monday July 7 meeting on CCSP

TO:"Conrad.C.Lautenbacher" <Conrad.C.Lautenbacher@noaa.gov> (
"Conrad.C.Lautenbacher" <Conrad.C.Lautenbacher@noaa.gov> [UNKNOWN])
READ:UNKNOWN

TO:Ghassem Asrar <gasrar@hq.nasa.gov> (Ghassem Asrar <gasrar@hq.nasa.gov> [UNKNOWN
])
READ:UNKNOWN

TO:Kathie L. Olsen (CN=Kathie L. Olsen/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TO:James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:"Secretary Donald L. Evans" <DEvans@doc.gov> ("Secretary Donald L. Evans"
<DEvans@doc.gov> [UNKNOWN])
READ:UNKNOWN

TO:Robert Card <Robert.Card@hq.doe.gov> (Robert Card <Robert.Card@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:Marcus Peacock (CN=Marcus Peacock/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

TO:John H. Marburger (CN=John H. Marburger/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

CC:James R Mahoney <James.R.Mahoney@noaa.gov> (James R Mahoney
<James.R.Mahoney@noaa.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Jordan St.John" <Jordan.St.John@noaa.gov> ("Jordan St.John"
<Jordan.St.John@noaa.gov> [UNKNOWN])
READ:UNKNOWN

CC:Lisa Camooso <LCamooso@doc.gov> (Lisa Camooso <LCamooso@doc.gov> [UNKNOWN])
READ:UNKNOWN

CC:Scott Rayder <Scott.Rayder@noaa.gov> (Scott Rayder <Scott.Rayder@noaa.gov> [UNKNOWN])
READ:UNKNOWN

CC:Pat Thorne <PThorne@doc.gov> (Pat Thorne <PThorne@doc.gov> [UNKNOWN])
READ:UNKNOWN

CC:vicki horton <vicki.horton@noaa.gov> (vicki horton <vicki.horton@noaa.gov> [UNKNOWN])
READ:UNKNOWN

CC:Ron Bonjean <RBonjean@doc.gov> (Ron Bonjean <RBonjean@doc.gov> [UNKNOWN])

Page 1

003331

CEQ 005020

0919_f_bj6mh003_ceq.txt

READ:UNKNOWN

CC:Jen McAndrew <JMcAndrew@doc.gov> (Jen McAndrew <JMcAndrew@doc.gov> [UNKNOWN])
READ:UNKNOWN

CC:Mike Gallagher <MGallagher@doc.gov> (Mike Gallagher <MGallagher@doc.gov> [UNKNOWN])
READ:UNKNOWN

CC:sbodman <sbodman@doc.gov> (sbodman <sbodman@doc.gov> [UNKNOWN])
READ:UNKNOWN

TEXT:
To all -

I am attaching two documents that will be discussed during the meeting Secretary Evans has scheduled for Monday, July 7 at 8:30 AM. These are:

1. The CCSP Vision Document as sent to the printers last evening (to be ready for use on July 15)
2. The Executive Summary Rewrite send to me yesterday by David Halpern on behalf of OSTP, CEQ AND OMB.

There will also be paper copies of these documents available in the meeting room on Monday morning.

Best regards,

Jim Mahoney

- Vision Printers Copy 7-02-03.doc - Halpern CCSP Executive Summary Rewrite 07-02-03.doc - James.R.Mahoney.vcf===== ATTACHMENT 1

=====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert NSREOP0103:[ATTACH.D78]SREOP01300HM6JB.001 to ASCII,
The following is a HEX DUMP:

===== END ATTACHMENT 2 =====

===== ATTACHMENT 3 =====

ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
begin:vcard
n:Mahoney;James
x-mozilla-html:FALSE
org:National Oceanic and Atmospheric Administration (NOAA)
version:2.1
email;internet:James.R.Mahoney@noaa.gov
title:Assistant Secretary of Commerce for Oceans and Atmosphere
adr;quoted-printable;;;U.S. Department of Commerce,=0D=0ARoom 5804,
=0D=0A14th Street & Constitution Avenue, NW;Washington;DC;20230;
fn:James R. Mahoney, Ph.D.
end:vcard

===== END ATTACHMENT 3 =====



COMPETITIVE ENTERPRISE INSTITUTE

8 July 2003

Fred L. Smith, Jr.

President
Ms. Shana Dale

Chief of Staff and General Counsel
Executive Office of the President
Office of Science and Technology Policy
Washington, D.C. 20502

BY FACSIMILE

Dear Ms. Dale,

I am responding to your letter to Christopher C. Horner dated 2 July 2003, in which you cite that OSTP, "before proceeding" on CEI's Request for Reconsideration ("Appeal"), "require(s) an internally consistent position from CEI on" whether the "National Assessment of the Potential Consequences of Climate Variability and Change for the United States" is a government document.

We're both amused and confused because, of course, it is not possible for a CEI characterization of the National Assessment in any forum to change the fact that, for purposes of FDQA, the report at issue is information produced and disseminated by OSTP, as assigned to it by the US Global Change Research Act. This triggers FDQA's standards. Whether this means the document is a *lawful or legitimate* "government document" (CEI believes it is not) is an entirely distinct issue.

CEI's position remains consistent and in agreement with the extensive record. The US Global Change Research Act of 1990, *et al.*, assign authority and responsibility for a "National Assessment" to OSTP. For this and other reasons, for purposes of review under FDQA any document purporting to be such an Assessment is the product of the government (OSTP). CEI believes that this report is not in fact a lawful government document, however, because either (as OSTP asserts) it was not produced by OSTP as required by the USGCRA, or it was indeed produced by OSTP (as the record indicates and law requires) but failed to satisfy the requirements of the Data Quality Act.

Please also note our position that OSTP is now overdue in responding to CEI's Request for Reconsideration of 5 May 2003.

Sincerely,

A handwritten signature in black ink that reads "Fred L. Smith". The signature is written in a cursive, slightly slanted style.

Fred L. Smith
President

CEQ
301 PC

**U.S. Climate Change Science Program:
Planning Workshop for Scientists and Stakeholders
3-5 December 2002
Washington, D.C.**

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E-mail: dandersl@hq.nasa.gov

000671

Participants 1

CEQ 005024

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FAX: (98) 2313327182
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Mr. Hugo Arevalo
Chief
Insituto del Mar del Perú
Esq. Gamarra y Gral. Valle N/No.
Chucuito-Callao, Lima CALLAO 1
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Dr. Joan L. Aron
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Ladies and gentlemen -

A PDF text file with the annexes for the strategic plan is attached for your use. As I mentioned in my transmittal memo of last evening, this annex material is also posted on the review site along with the graphics.

Jim Mahoney

- Strat Plan Annexes 6-30-03.pdf
- James.R.Mahoney.vcf

===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

0957_f_pd7ph003_ceq.txt

TEXT:

Unable to convert NSREOP0103:[ATTACH.D98]SREOP01300HP7DP.001 to ASCII,
The following is a HEX DUMP:

255044462D312E350D25E2E3CFD30D0A312030206F626A20323233370D656E646F626A0D322030

===== END ATTACHMENT 1 =====

===== ATTACHMENT 2 =====

ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

begin:vcard

n:Mahoney;James

x-mozilla-html:FALSE

org:National Oceanic and Atmospheric Administration (NOAA)

version:2.1

email;internet:James.R.Mahoney@noaa.gov

title:Assistant Secretary of Commerce for Oceans and Atmosphere

adr;quoted-printable;;;U.S. Department of Commerce,=0D=0ARoom 5804,

=0D=0A14th Street & Constitution Avenue, NW;Washington;DC;20230;

fn:James R. Mahoney, Ph.D.

end:vcard

===== END ATTACHMENT 2 =====

0958_f_re7ph003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 9-JUL-2003 08:12:12.00

SUBJECT:: [Fwd: Vision Document - Printer's Version [RESTRICTED]]

TO: Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP@EOP [CEQ])

READ: UNKNOWN

TEXT:

----- Forwarded by Phil Cooney/CEQ/EOP on 07/09/2003
08:10 AM -----

James R Mahoney <James.R.Mahoney@noaa.gov>

07/03/2003 03:13:11 PM

Record Type: Record

To: CCSP@USGCRP.GOV

CC:

Subject: [Fwd: Vision Document - Printer's Version [RESTRICTED]]

To all - I am sending this a second time. I entered the group address incorrectly the first time. Jim Mahoney

----- Original Message -----

Subject: Vision Document - Printer's Version [RESTRICTED]

Date: Thu, 03 Jul 2003 15:05:37 -0400

From: "James R Mahoney" <James.R.Mahoney@noaa.gov>

To: CCSP@USGCRP, James R Mahoney <James.R.Mahoney@noaa.gov>

To all -

I am attaching a file with the full text and illustrations of the CCSP Vision document as we sent it to the printer last evening. Please note that graphics are already embedded in the text on pages 3 and 10. Other color graphics are attached to each of the "research element boxes" that will be placed as noted in the text when the layout is completed.

Last evening was our latest deadline to get a full color, full layout document ready for use by Secretary Abraham and Secretary Evans at a roll out scheduled for July 15. (Note: Do not disseminate this date. It may change.)

Also, note that we will be able to make a very limited number of edits (best if they are substitutions of similar amounts of text) during galley proof review scheduled for July 8 and/or 9.

Jim Mahoney

- Vision Printers Copy 7-02-03.doc

===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

Page 1

003423

CEQ 005042

0959_f_rh7ph003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 9-JUL-2003 08:14:41.00

SUBJECT:: Main CCSP Document for concurrence/final edits

TO: jeffrey.b.clark@usdoj.gov @ inet (jeffrey.b.clark@usdoj.gov @ inet [UNKNOWN])
READ: UNKNOWN

TEXT:

Jeff, as promised, here is the first of the 10-year strategic plan documents. Ken

----- Forwarded by Kenneth L. Peel/CEQ/EOP on 07/09/2003
08:12 AM -----

Phil Cooney
07/09/2003 08:09:38 AM
Record Type: Record

To: Kenneth L. Peel/CEQ/EOP@EOP
CC:
Subject: Main CCSP Document for concurrence/final edits

----- Forwarded by Phil Cooney/CEQ/EOP on 07/09/2003
08:09 AM -----

Phil Cooney
07/01/2003 09:19:20 AM
Record Type: Record

To: Quesean R. Rice/CEQ/EOP@EOP
CC:
Subject: Main CCSP Document for concurrence/final edits

please print out attachment -- Strategic Plan concurrence text. thanks
Phil

----- Forwarded by Phil Cooney/CEQ/EOP on 07/01/2003
09:18 AM -----

James R Mahoney <James.R.Mahoney@noaa.gov>
06/30/2003 07:12:38 PM
Record Type: Record

To: CCSP@USGCRP.GOV, CCSP_INFO@USGCRP.GOV
cc: See the distribution list at the bottom of this message
Subject: Main CCSP Document for concurrence/final edits

Ladies and gentlemen,

I am attaching a PDF file with the revised text (without annexes) of the
Page 1

003424

CEQ 005045

0959_f_rh7ph003_ceq.txt

main CCSP scientific strategic plan document, for your concurrence or final edits. The annexes for the document are in final checking at the CCSP office at this time. I will send them to you as soon as their checkout is completed - expected for early Tuesday. These annexes will also be posted on the website <https://www.usgcrp.gov/techrvw> as soon as they are completed.

name: techrvw
password: ccsplan

To reduce the PDF file size all of the graphics for the plan have been removed from the text file, and are also being posted on the same website as above (with the same name and password). These graphics should be available by approximately 8:00 PM this evening.

INSTRUCTIONS: DEADLINE IS COB WEDNESDAY, JULY 2

N.B. REMEMBER THIS DOCUMENT IS RESTRICTED

Please review this revised document, and take one of the two following actions:

1. If you concur with publication of the document, please send an electronic message with your concurrence to ERIN WUCHTE email: ewuchte@omb.eop.gov by COB WEDNESDAY, with a copy to me.
2. If you wish to discuss further revisions (please keep to the minimum feasible), please email me or call me at 202-482-3567 by COB WEDNESDAY.

We need to keep Thursday, July 3 available for us to review and understand any open edit issues with you. We expect to commit time over the July 4 weekend to resolve any issues, so that we can reach closure by midday Monday July 7. We must be able to release the document for final copy edit, composing and printing after July 7, so that we can have printed copies available for the public presentation by Secretaries Abraham and Evans currently scheduled for July 15.

I look forward to receiving the message of your concurrence, or your list of issues remaining to be addressed, by Wednesday, July 2.

Thank you again for your attention to this.

Jim Mahoney

- att1.htm
- Strat Plan Agency Concurrence TEXT 6-30-03.pdf
- James.R.Mahoney.vcf

Message Copied

To: _____
Kathie L. Olsen/OSTP/EOP@EOP
E. Holly Fitter/OMB/EOP@EOP
Erin Wuchte/OMB/EOP@EOP
sbodman <sbodman@doc.gov>
"Conrad.C.Lautenbacher" <Conrad.C.Lautenbacher@noaa.gov>
Scott Rayder <Scott.Rayder@noaa.gov>
Robert Card <Robert.Card@hq.doe.gov>

=====
ATTACHMENT 1
=====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

<!doctype html public "-//w3c//dtd html 4.0 transitional//en">
<html>

Ladies and gentlemen,

<p>I am attaching a PDF file with the revised text (without annexes) of the main CCSP scientific strategic plan document, for your concurrence or final edits. The annexes for the document are in final checking at the CCSP office at this time. I will send them to you as soon as their checkout is completed - expected for early Tuesday. These annexes will also be posted on the website <u>https://www.usgcrp.gov/techrvw</u> as soon as they are completed.

name: techrvw

password: ccspplan

<p>To reduce the PDF file size all of the graphics for the plan have been removed from the text file, and are also being posted on the same website as above (with the same name and password). These graphics should be available by approximately 8:00 PM this evening.<u></u>

<p><u>INSTRUCTIONS: DEADLINE IS COB WEDNESDAY, JULY 2</u><u></u>

<p><u>N.B. REMEMBER THIS DOCUMENT IS RESTRICTED</u><u></u>

<p>Please review this revised document, and take one of the two following actions:

<p>1. If you concur with publication of the document, please send an electronic message with your concurrence to ERIN WUCHTE email: <u>ewuchte@omb.eop.gov</u> by COB WEDNESDAY, with a copy to me.

<p>2. If you wish to discuss further revisions (please keep to the minimum feasible), please email me or call me at 202-482-3567 by COB WEDNESDAY.

<p>We need to keep Thursday, July 3 available for us to review and understand any open edit issues with you. We expect to commit time over the July 4 weekend to resolve any issues, so that we can reach closure by midday Monday July 7.

we must be able to release the document for final copy edit, composing and printing after July 7, so that we can have printed copies available for the public presentation by Secretaries Abraham and Evans currently scheduled for July 15.

<p>I look forward to receiving the message of your concurrence, or your list of issues remaining to be addressed, by wednesday, July 2.

<p>Thank you again for your attention to this.

<p>Jim Mahoney</html>

=====
END ATTACHMENT 1
=====

=====
ATTACHMENT 2
=====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

Unable to convert NSREOP0103:[ATTACH.D44]SREOP01300HP7HR.002 to ASCII,
The following is a HEX DUMP:

=====
END ATTACHMENT 2
=====

=====
ATTACHMENT 3
=====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

0959_f_rh7ph003_ceq.txt

begin:vcard
n:Mahoney;James
x-mozilla-html:FALSE
org:National Oceanic and Atmospheric Administration (NOAA)
version:2.1
email;internet:James.R.Mahoney@noaa.gov
title:Assistant Secretary of Commerce for Oceans and Atmosphere
adr;quoted-printable:;;U.S. Department of Commerce,=0D=0ARoom 5804,
=0D=0A14th Street & Constitution Avenue, NW;Washington;DC;20230;
fn:James R. Mahoney, Ph.D.
end:vcard

===== END ATTACHMENT 3 =====

0960_f_di7ph003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 9-JUL-2003 08:15:31.00

SUBJECT:: Annexes to the plan

TO: jeffrey.b.clark@usdoj.gov @ inet (jeffrey.b.clark@usdoj.gov @ inet [UNKNOWN])
READ: UNKNOWN

TEXT:
second of three on 10-year strategic plan

----- Forwarded by Kenneth L. Peel/CEQ/EOP on 07/09/2003
08:13 AM -----

Phil Cooney
07/09/2003 08:09:52 AM
Record Type: Record

To: Kenneth L. Peel/CEQ/EOP@EOP
CC:
Subject: Annexes to the plan

----- Forwarded by Phil Cooney/CEQ/EOP on 07/09/2003
08:09 AM -----

Phil Cooney
07/02/2003 07:20:55 AM
Record Type: Record

To: QueSean R. Rice/CEQ/EOP@EOP
CC:
Subject: Annexes to the plan

QR, please print out attachments. THANKS! Phil
----- Forwarded by Phil Cooney/CEQ/EOP on 07/02/2003
07:20 AM -----

James R Mahoney <James.R.Mahoney@noaa.gov>
07/01/2003 01:39:35 PM
Record Type: Record

To: CCSP@USGCRP.GOV, CCSP_INFO@USGCRP.GOV
CC:
Subject: Annexes to the plan

Ladies and gentlemen -

A PDF text file with the annexes for the strategic plan is attached for your use. As I mentioned in my transmittal memo of last evening, this annex material is also posted on the review site along with the

0960_f_di7ph003_ceq.txt

graphics.

Jim Mahoney

- Strat Plan Annexes 6-30-03.pdf
- James.R.Mahoney.vcf

=====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert NSREOP0103:[ATTACH.D66]SREOP01300HP7ID.001 to ASCII,
The following is a HEX DUMP:

255044462D312E350D25E2E3CFD30D0A312030206F626A20323233370D656E646F626A0D322030

=====
END ATTACHMENT 1

=====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
begin:vcard
n:Mahoney;James
x-mozilla-html:FALSE
org:National Oceanic and Atmospheric Administration (NOAA)
version:2.1
email;internet:James.R.Mahoney@noaa.gov
title:Assistant Secretary of Commerce for Oceans and Atmosphere
adr;quoted-printable;;;U.S. Department of Commerce,=0D=0ARoom 5804,
=0D=0A14th Street & Constitution Avenue, NW;Washington;DC;20230;
fn:James R. Mahoney, Ph.D.
end:vcard

=====
END ATTACHMENT 2

0961_f_zi7ph003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 9-JUL-2003 08:16:15.00

SUBJECT:: [Fwd: Vision Document - Printer's Version [RESTRICTED]]

TO: jeffrey.b.clark@usdoj.gov @ inet (jeffrey.b.clark@usdoj.gov @ inet [UNKNOWN])
READ: UNKNOWN

TEXT:

3 of 3 on 10-year strategic plan. I'll check to see if this covers everything. I'll fax any additional docs I got at yesterday's meeting.

----- Forwarded by Kenneth L. Peel/CEQ/EOP on 07/09/2003
08:14 AM -----

Phil Cooney
07/09/2003 08:10:57 AM
Record Type: Record

To: Kenneth L. Peel/CEQ/EOP@EOP
CC:
Subject: [Fwd: Vision Document - Printer's Version [RESTRICTED]]

----- Forwarded by Phil Cooney/CEQ/EOP on 07/09/2003
08:10 AM -----

James R Mahoney <James.R.Mahoney@noaa.gov>
07/03/2003 03:13:11 PM
Record Type: Record

To: CCSP@USGCRP.GOV
CC:
Subject: [Fwd: Vision Document - Printer's Version [RESTRICTED]]

To all - I am sending this a second time. I entered the group address incorrectly the first time. Jim Mahoney

----- Original Message -----
Subject: Vision Document - Printer's Version [RESTRICTED]
Date: Thu, 03 Jul 2003 15:05:37 -0400
From: "James R Mahoney" <James.R.Mahoney@noaa.gov>
To: CCSP@USGCRP, James R Mahoney <James.R.Mahoney@noaa.gov>

To all -

I am attaching a file with the full text and illustrations of the CCSP Vision document as we sent it to the printer last evening. Please note that graphics are already embedded in the text on pages 3 and 10. Other color graphics are attached to each of the "research element boxes" that will be placed as noted in the text when the layout is completed.

Last evening was our latest deadline to get a full color, full layout
Page 1

003426

CEQ 005053

0996_f_gxdqh003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 10-JUL-2003 08:14:53.00

SUBJECT: USGCRP Web Site Update: 9 July 2003

TO: Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Kameran L. Onley (CN=Kameran L. Onley/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Bryan J. Hannegan (CN=Bryan J. Hannegan/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TEXT:

This site is always interesting reading. Note USGCRP announced these additions to its site on this broad public email mailing list.

----- Forwarded by Kenneth L. Peel/CEQ/EOP on 07/10/2003
08:12 AM -----

nick@sundt.org

07/09/2003 04:42:56 PM

Please respond to nick@sundt.org

Record Type: Record

To: Climate Change Info Mailing List <climate-1@lists.iisd.ca>

CC:

Subject: USGCRP Web Site Update: 9 July 2003

The US Global Change Research Program has just updated its "New" page with a wide-ranging set of organized links to new online material. See the additions at:

<http://www.usgcrp.gov/usgcrp/new.htm>

The page is usually updated monthly and provides an easy way to monitor important scientific developments -- without having to dig around dozens of different web sites.

Among the latest highlights are links to:

**Leading climate scientists reaffirm view that late 20th Century warming was unusual. Press release (dtd 7 July 2003) from American Geophysical Union.

**Hydrogen fuel could widen ozone hole: Likely leaks blot green power's perfect reputation. Article (dtd 17 June 2003) from Nature "Science Update."

**Wet Tropics Carbon Sink? Press release (dtd 16 June 2003) from the Australian Institute of Marine Science (AIMS).

0996_f_gxdqh003_ceq.txt

**Plant diversity threatened by climate change and buildup of greenhouse gas, study reveals. Press release (dtd 16 June 2003) from Stanford University.

**Testimony of James Mahoney, Director of CCSP, before US Senate field hearing on Carbon Sequestration. Hearing held by Senate Committee on Commerce, Science and Transportation, Subcommittee on Science, Technology and Space, on 6 June 2003 in Manhattan, Kansas.

**Global garden grows greener. Press release (dtd 5 June 2003) from NASA Goddard Space Flight Center.

**Early Birds: Is Warming Changing U.K. Breeding Season? Article (dtd 3 June 2003) from National Geographic.

FUNDING OPPORTUNITIES:

**Ocean Observatories Initiative: Project Office to Coordinate Ocean Observing Activities. "The Division of Ocean Sciences requests proposals from interested groups for the establishment of a Project Office to coordinate and assist with activities related to ocean observing systems leading to the Ocean Observatories Initiative (OOI)." Program solicitation from the National Science Foundation. Letter of Intent Due Date: September 29, 2003. Full Proposal Deadline: October 27, 2003.

**Research Announcement: New Investigator Program in Earth Science. Solicitation released by NASA on 27 May 2003. Proposals Due Date: August 15, 2003. "The New Investigator Program (NIP) in Earth Science was established in Fiscal Year 1996 to encourage the integration of Earth system science research and education by scientists and engineers at the early stage of their professional careers."

MEETINGS:

**31 July 2003. Earth Observation Summit. Sponsor: U. S. Government. Contact: Richard Ohlemacher, Policy Advisor, Office of the Under Secretary of Commerce for Oceans and Atmosphere, U.S. Department of Commerce, Tel: +1 202 482 1567. Fax: +1 202 482 1041. Email: Richard.ohlemacher@noaa.gov. (link posted 5 July 2003)

**23-30 July 2003. Reno, Nevada. The XVI INQUA Congress. "Shaping the Earth: A Quaternary Perspective." "Held every four years, the INQUA Congress is the largest gathering of scientists studying the Quaternary period, the last 2.6 million years of Earth's history." Sponsor: International Union for Quaternary Research (INQUA), Geological Society of America and others. Contact: Mary Berthelson. Email: mberthelson@geosociety.org. Tel: +1 303 357 1083.

....and much more.

Sincerely,
Nick Sundt
US Global Change Research Program /
Climate Change Science Program
1717 Pennsylvania Ave., NW
Suite 250
Washington, DC 20006
Tel: +1 202 419 3480
Fax: +1 202 223 3065
Email: nsundt@usgcrp.gov
Web: www.usgcrp.gov and www.climate-science.gov

0996_f_gxdqh003_ceq.txt

You are currently subscribed to climate-l as: kpeel@ceq.eop.gov
To unsubscribe send a blank email to leave-climate-l-138291x@lists.iisd.ca
- Subscribe to Linkages Update to receive our fortnightly, html-newsletter
on what's new in the international environment and sustainable development
area: http://www.iisd.ca/email/email_subscription_manager.htm
- Archives of Climate-L and Climate-L News are available online at:
<http://www.iisd.ca/email/climate-L.htm>
- Archives of Water-L and Water-L News are available online at:
<http://www.iisd.ca/email/water-L.htm>

CEI

CEQ 16 PC



COMPETITIVE ENTERPRISE INSTITUTE

10 July 2003

Ms. Shana Dale
Chief of Staff and General Counsel
Executive Office of the President
Office of Science and Technology Policy
Washington, D.C. 20502

BY FACSIMILE - 7 Pages

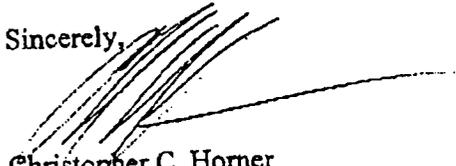
Dear Ms. Dale,

Pursuant to CEI's letter to you signed by CEI President Fred Smith and dated 8 July 2003, CEI respectfully requests that OSTP provide within two weeks from the date of this letter its overdue response to CEI's Request for Reconsideration ("Appeal") of OSTP's denial of CEI's Request for Correction of the impermissible data contained in the "National Assessment of the Potential Consequences of Climate Variability and Change for the United States" ("National Assessment").

To further assist OSTP in its analysis, please also see the attached documents found while reviewing our files from CEI's previous litigation against this unlawfully produced and, now, disseminated "National Assessment" (*CEI, et al. v. Clinton (Bush)*)(DC DC 00-02383). The provided excerpts are selected pages from USGCRP (for these purposes, OSTP) documents containing numerous confirmations of the Assessment's authorizing statute, including that, *inter alia*, a) the Assessment's "parent body" is the CENR (NSTC/OSTP), b) reiterating that the FACA committee established in mid-process (NAST) was limited to "leadership and direction" (not legal authority and responsibility) and developing an Assessment *component*, the Synthesis Report ("SR"); and c) even that was only a draft, as the OSTP-edited SR "will be published by the Federal Government".

All of this confirms the volumes of similar acknowledgements in the record, presented in CEI's Appeal and contrary to OSTP's argument to deny CEI's Request. Again, there is no reasonable claim to deny that the "National Assessment" for purposes of FDQA is a product of the government. We look forward to OSTP's timely Response.

Sincerely,



Christopher C. Horner

National Assessment of the Consequences of Climate Variability and Change for the United States

Terms of Reference and Charge for the Synthesis Team

January 27, 1998

Terms of Reference: Climate change and variability now and in the future pose both challenges and opportunities for our nation. To be prepared, the United States is developing a national assessment activity to identify and analyze the consequences of climate variability and change for the United States. A set of activities are being established to assess the risks and opportunities for the United States — its people, its environment, and its economy — associated with the increased climate variability and climate change. This national assessment will involve a broad spectrum of stakeholders from state, local, and federal government; business; academia; and non-profit organizations. The assessment will take place under the auspices of the U.S. Global Change Research Program (US/GCRP), the federal interagency research program mandated by legislation with the responsibility to undertake scientific assessments of the implications of climate change for the United States.

The "Global Change Research Act of 1990" (P.L. 101-606) states that the federal interagency committee for global change research of the National Science and Technology Council "shall prepare and submit to the President and the Congress an assessment which—

- (1) integrates, evaluates, and interprets the findings of the Program and discusses the scientific uncertainties associated with such findings;
- (2) analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; and
- (3) analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years."

During the past year, the US/GCRP, in cooperation with the Office of Science and Technology Policy (OSTP), has engaged in a comprehensive planning effort to implement this national assessment process. These efforts have included regional workshops; an intensive two-week summer study; a National Forum; and extensive discussions among federal agencies, the science community, the stakeholder communities, and the interagency committee for global change research. That process has led to a recommendation that a Synthesis Team be established, the Terms of Reference and Charge for which are outlined below. This document outlines the responsibilities for this Synthesis Team.

Guiding Principles: The assessment process is founded on the principles of scientific excellence and openness; is designed to be comprehensive, integrative, and iterative; will link research by scientists to specific needs of the stakeholders; and will provide planners, managers, organizations, and the public with the information needed to increase resilience to climate variability and cope with climate change.

☆ **Organizational Framework:** The National Assessment will be a core activity of the U.S. Global Change Research Program. It will be conducted within the National Science and Technology Council's framework, through its Committee on Environment and Natural Resources and its Subcommittee for Global Change Research (SGCR). To assure a fully open process, the assessment will include both public and private sector partners across the spectrum of stakeholder interests in the U.S.. The process will be overseen by the SGCR through the following basic organizational framework:

- ◆ The SGCR has established a National Assessment Working Group (NAWG) composed of representatives of the relevant and cognizant federal agencies to provide general oversight of the national assessment process. The NAWG is the principal interagency venue to link the agencies and offices of the federal government to the various components of the national assessment process.

- Comment*
- ◆ A National Assessment Synthesis Team (NAST) will be established to provide overall leadership and direction to this Assessment. The principal responsibilities of the National Assessment Synthesis Team are to guide the assessment process, to review and integrate the findings of the regional and sectoral assessment activities into the overall process, and to prepare a national assessment Synthesis Report. The detailed responsibilities are outlined below.

- ◆ Teams and mechanisms will be established, with appropriate Terms of Reference and Charges to assess the consequences of climate variability and change for various economic and societal sectors and regions of the United States.
- ◆ A National Assessment Coordination Office (NACO) is being established by the SGCR with the responsibility to support the Synthesis Team, and the teams and organizational entities that will conduct the sectoral and regional assessments.

Charge for the National Assessment Synthesis Team: The National Assessment Synthesis Team will be formed under the auspices of the Subcommittee on Global Change Research (SGCR), within the purview of the Committee on Environmental and Natural Resources (CENR) and under the National Science and Technology Council (NSTC). Its membership is to be drawn from government, academia, and private enterprise, and it is meant to have broad responsibilities for the design and conduct of the

national effort to assess the consequences of climate variability and climate change for the United States. Specifically, the National Assessment Synthesis Team will:

- ◆ Consult with the NAWG in the preparation of a National Assessment Plan for review and approval by the CENR and NSTC. This plan will: (i) outline the overall strategy, content, methodologies and implementation plans for the National Assessment (ii) detail the structure of and methodology for incorporating regional, sectoral, and national perspective and concerns, (iii) establish the key schedule and a time table for the total assessment, and (iv) describe the review process for the Assessment to assure scientific excellence, openness, and broad participation;
- ◆ Define, in collaboration with the NAWG and the Federal agencies, the climate scenarios to be used in the National Assessment. Such scenarios should take into account the scenarios of the IPCC;
- ◆ Make, in concert with the NAWG, the final selection of sectors and regions to be covered in the National Assessment;
- ◆ Develop templates for sectoral and regional assessments cooperatively with the NAWG;
- ◆ Oversee the sectoral assessments;
- ◆ Maintain cognizance of the regional assessments and results in order to incorporate their results in a final Synthesis Report;
- ◆ Prepare a final Synthesis Report, which draws on the results of all regional, sectoral, and national analyses available, and which addresses the questions (such as those included in the attached letter from Dr. John H. Gibbons) of most interest to the stakeholder communities and of the federal agencies through the SGCR, CENR, and NSTC; and
- ◆ Organize, within the framework of the Terms of Reference noted above and this Charge, the Synthesis Team activities so that the Synthesis Report and the companion sectoral and regional assessment reports are completed, externally reviewed, and submitted to the SGCR so that these reports can be completed and published by January 1, 2000.

*Emerson Summary
*analyses
have prepared
3-4 no.*

cc: Letter of January 8, 1998 from Dr. John H. Gibbons, Assistant to the President for Science and Technology, to the Chair of the Subcommittee on Global Change

The overall assessment effort will have three major components:

- 1) National synthesis. This will draw together the results of regional workshops and/or analyses and sectoral analyses of the potential consequences of climate variability and change. In addition, the synthesis effort will involve new analyses as are needed and feasible. It will be national in scope.
- 2) Sectoral analyses. These analyses will consider potential consequences of climate variability and change on major economic sectors such as agriculture, "environmental sectors" such as the coastal zone, and "societal sectors" such as human health. These analyses will be quantitative and national in scope.
- 3) Regional analyses. Regional workshops and analyses will identify and characterize potential consequences of climate variability and change for selected geographic regions. These analyses will be performed by teams comprised of experts from both public and private sectors and the spectrum of stakeholder communities.

The National Assessment will emphasize the potential consequences over the next 25-30 years, and also over the next 100 years. All regional, sectoral and synthesis analyses will use a common set of scenarios for climate change and changes in socio-economic conditions. The use of common scenarios across all analyses will facilitate synthesis. Analyses of potential consequences over the next 100 years will need to consider the potential for significant secular changes in climate, potentially accompanied by changes in climate variability and the frequency of extreme events, as well as the projected large changes in atmospheric carbon dioxide concentrations. Over this time frame, coping technologies and practices can also be expected to change, so some provision must be made in the analyses for these considerations. Analyses of potential consequences over the next 25-30 years will need to consider that atmospheric carbon dioxide concentrations will certainly continue to rise, and there may be modest, but observable, trends in climate. Potential consequences over both short and long time frames will need to consider the possibility of non-linear and threshold responses.

III. MANAGEMENT OF THE NATIONAL ASSESSMENT PROCESS

The parent body within the US Government for the National Assessment is the Committee on Environment and Natural Resources (CENR), which is a subsidiary body of the National Science and Technology Council, chaired by the President. The CENR has delegated responsibility for oversight of assessment activities to its Subcommittee on Global Change Research (SGCR), which is the parent committee for the USGCRP. The SGCR has broad responsibilities for research planning and coordination among the Federal agencies. With respect to the National Assessment, the SGCR has been charged with overall coordination, implementation, and sponsorship of the national assessment process. The letter from the White House to the chair of

the SGCR assigning this responsibility is included as Appendix 1. The Terms of Reference developed by the SGCR for the NAST are included as Appendix 2.

Specific responsibilities have been defined for oversight of the three major components of the National Assessment and for coordination activities (see also charges to the various entities and other expanded statements of roles and responsibilities). The National Assessment is envisioned as a broad-based process that includes structured interaction with a range of regional and sectoral experts and stakeholders.

The NAST is to provide overall intellectual oversight of the national assessment process and has specific responsibility for the National Assessment Synthesis Report, for defining national scenarios, for providing advice and oversight of the sectoral analyses, and for recommending guidelines for the template for the regional analyses. The NAST, a FACA-chartered committee, is a public-private partnership: its members are drawn from government, academia, and the private sector. The NAST and the SGCR/NAWG jointly are charged with producing templates for both regional and sectoral analyses, to ensure that there is sufficient commonness of purpose that a final synthesis is possible, while not overly constraining the ability of the regions to address issues that are of particular importance to them. The NAST is also specifically charged with preparing this Assessment Plan, and with recommending a review procedure for the final synthesis report.

(NAST should own product 5/12!)

Individual agencies or groups of agencies, in cooperation with the SGCR/NAWG, have lead responsibility for organizing and sponsoring the sectoral analyses under the guidelines established by the NAST and SGCR/NAWG. Each sectoral team will be composed of both public and private participants.

SGCR/NAWG has primary oversight and coordination responsibility for the regional workshops and analyses. Regional activities will be sponsored by individual agencies or groups of agencies. To help address issues and questions that reach across regions (e.g., water resources, ecosystem migration), an Inter-Regional Forum will be established by the SGCR/NAWG and will be expected to assist NAST and the sectoral analysis teams in addressing such issues. The Inter-Regional Forum will consist of one representative from each region, and will be charged with encouraging sharing of information, methods, data, and findings across regions.

Logistical support for the assessment process for both the SGCR/NAWG and the NAST will be provided by the National Assessment Coordination Office (NACO). As importantly, NACO will serve as a resource for the regional workshops and analyses that are being sponsored through the efforts of the individual Federal agencies. NACO is expected to help provide a framework within which the efforts of large numbers of local, regional, and Federal participants can interact with the national assessment process in ways that provide useful insights and results for the National Synthesis, and to promote development of stakeholder networks that will develop useful insights for their own purposes, quite apart from any final National Synthesis.



IV. OUTPUTS OF THE NATIONAL ASSESSMENT PROCESS

The outputs of the national assessment process are intended to inform national and regional policy makers, land and resource managers, public and private organizations, and the public. The outputs will be based on the best available scientific information, and must respond to the issues that have been raised by the broad spectrum of stakeholders. There are three classes of products that are envisioned from the national assessment process:

1) The National Assessment Synthesis Report. This report will be both synthesis and summary of sectoral and regional analyses, studies, and workshops combined with additional quantitative analysis to provide an integrated National Assessment of the potential consequences of climate variability and change for the United States. It will be relevant to the policy decisions that both public and private sectors must make. The Synthesis Report is not intended to be a paper in the scientific, peer-reviewed literature, but it will be extensively reviewed (described below), and will be published by the Federal Government. Preparing the National Assessment Synthesis Report is the responsibility of the NAST.

2) Sectoral Studies and Analyses. Each sector chosen by the NAST and the SGCR/NAWG for investigation will be the subject of workshops and quantitative analyses. This work must consider the implications of the National Assessment scenarios and be able to stand on its own merits, as well as contribute to the overall National Assessment Synthesis Report. Of necessity, the National Assessment Synthesis Report will be able to communicate only part of the detail that each sectoral study will generate. Therefore, each sectoral study should result in a substantive report that will be widely reviewed for its technical merit through a process agreed to by the NAST and SGCR/NAWG. In addition, the national assessment process encourages that the contributors to sectoral studies and analyses take every opportunity to prepare papers whose ultimate home is in the scientific, peer-reviewed literature.

3) Regional Reports and Analyses. At regional levels, the reports from the individual regional workshops will be published within a reasonable period of time after appropriate review. In addition, regional analyses will rely on stakeholder interactions and the National Assessment set of scenarios as well as other region-specific projections to explore the implications of climate change and variability on spatial scales that are the most relevant for many potential stakeholders. These reports and analyses will also be critical for the overall effort because the National Assessment Synthesis Report cannot be expected to represent all the detail inherent in any single regional analysis. Therefore, each regional analysis should result in a substantive report that will be widely reviewed for its technical merit and relevance for regional and national stakeholders. In addition, the national assessment process encourages the contributors to regional reports and analyses to take every opportunity to prepare papers whose ultimate home is in the scientific, peer-reviewed literature.

CEQ
241 PC

• Dana M. Perino

07/11/2003 07:58:09 AM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP

CC:

Subject: FW: Molly Ivins

Could you please take a quick glance below? Gut reaction?

----- Forwarded by Dana M. Perino/CEQ/EOP on 07/11/2003 07:57 AM -----



"Catanzaro, Michael (EPW)" <Michael_Catanzaro@epw.senate.gov>

07/10/2003 07:01:01 PM

Record Type: Record

To: Dana M. Perino/CEQ/EOP@EOP

CC:

Subject: FW: Molly Ivins

What do you think of this?

-----Original Message-----

From: Catanzaro, Michael (EPW)

Sent: Thursday, July 10, 2003 4:00 PM

To: Wheeler, Andrew (EPW)

Subject: RE: Molly Ivins

All over the country--it's a syndicated column. Here's what I put together.

Liberal columnist Molly Ivins took it upon herself to set the record straight on global warming in her June 26 column. She did that by criticizing the Bush Administration's "Orwellian" tactics--she got positively frothy over the White House's sound deletion of scientifically vague global warming language in an EPA draft report--and savaged President Bush for lying about this issue and many others.

President Bush, of course, is not lying or using Orwellian tactics. He's doing the responsible thing by following objective, fact-based science. The EPW Committee examined Ivins's claims to determine their basis in fact. Unfortunately Miss Ivins, whose column is nationally syndicated, appears to be, at a minimum, terribly misinformed.

Problem-solving worthy of Orwell
By Molly Ivins

Ivins: You've got to hand it to those clever little problem-solvers at the White House. What a bunch of brainiacs. They have resolved the entire problem

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CEQ 005068

of global warming: They cut it out of the report!

RESPONSE: What was cut out of the report, Molly? The earlier draft of the EPA report introduces the "Global Issues" section with the sentence: "Climate change has global consequences for human health and the environment." A redraft of the final version instead begins: "The complexity of the Earth system and the interconnections among its components make it a scientific challenge to document change, diagnose its causes, and develop useful projections of how natural variability and human actions may affect the global environment in the future."

Molly, what did the National Academy of Sciences write in 2001? "Because of the large and still uncertain level of natural variability inherent in the climate record and the uncertainties in the time histories of various forcing agents (and particularly aerosols), a causal linkage between the buildup of greenhouse gases in the atmosphere and the observed climate changes in the 20th Century cannot be unequivocally established."

Ivins: This is genius. Everybody else is maundering on about the oceans rising and the polar icecaps melting and monster storms and hideous droughts, and these guys just ... edit it out.

RESPONSE: Molly, where to begin? Are these catastrophes really the result of fossil fuels? Perhaps you should consult the temperature data. According to the American Geophysical Union, the Arctic was warmer in 1935 than it is now. Take a look for yourself: "Two distinct warming periods from 1920 to 1945, and from 1975 to the present, are clearly evident ... compared with the global and hemispheric temperature rise, the high-latitude temperature increase was stronger in the late 1930s to early 1940's than in recent decades."

Also remember, Molly, in the 20th century, 80 percent of the increased CO2 concentrations in the atmosphere occurred after 1940.

"Hideous droughts?" You mean, of course, because of fossil fuels inducing global warming. Molly, researchers with the National Oceanic and Atmospheric Administration found otherwise. In the last 700 years there have been two "mega-droughts" that lasted for two to four decades each. A sixteenth century mega-drought lasted 20 to thirty years and may have stretched from the West to the East Coast. According to Connie Woodhouse, one of the researchers at the University of Colorado, "There's this 20-year periodicity of drought, we're not sure what that is due to, but it seems to be fairly regular." Molly?

What about monster storms? That's code for "severe weather events," like heat waves, induced by global warming. "The fact that it's hot for a week has nothing at all to do with global warming, which would be measured over decades, not days," says National Weather Service meteorologist Richard Tinker.

Ivins: "The editing eliminated references to many studies concluding that warming is at least partly caused by rising concentrations of smokestack and tailpipe emissions, and could threaten health and ecosystems," reports The New York Times. Presto -- poof!

FACT: Molly, you realize that you are relying on a statement that is essentially meaningless, yet couched in such a way as to dramatize the issue. You've been duped! Consider again: Is "at least partly caused" by "rising concentrations of smokestack and tailpipe emissions, and could threaten health and ecosystems." How much is partly? Does that mean .0006 percent? 5 percent? 85 percent? At what percent should we be concerned? Molly, do you know? "Could" threaten health and ecosystems? Isn't the science of global warming supposed to be settled? Shouldn't it be "will" threaten health and

ecosystems?

Ivins: Inspiring as the remarkable Bush approach to resolving global warming is -- the simplicity of it, the beauty of it, I cannot get over it -- does it not suggest a certain cavalier je ne sais quoi about the future? What I mean is, is anybody there concerned about what happens to people?

FACT: Yes, as a matter of fact, which is why President Bush proposed Clear Skies, the most aggressive presidential initiative in history to reduce power plant emissions. Yes, it addresses (and reduces) those emissions that have demonstrated health affects on people's lives. Problem is, Molly, it can't get passed because environmentalists, presumably those folks you enthusiastically support, would rather obstruct Clear Skies in order to fundraise and play politics over regulating carbon dioxide, something that has no health impacts--we humans exhale it with every breath.

Ivins: I realize that the energy industry and the auto industry and other major campaign contributors would prefer to think global warming does not exist, but how long do you think it will take before reality catches up with all of us? The White House editors (hi, Karl) instead chose to insert a new study on global non-warming funded by -- ta-da! -- the American Petroleum Institute.

RESPONSE: First, Molly, it's not that it doesn't exist. The Earth has cooled and warmed for centuries. The key question is: what role do humans play? Not much at all, if you read the scientific literature.

As for the API issue: Molly, did you know, or care to find out, that API funded less than 10 percent of the study? Had you read (or maybe you did) the Harvard-Smithsonian press release announcing the study, you would have found that most of the funding came from federal grants through NASA, the Air Force Office of Scientific Research, and the National Oceanic and Atmospheric Administration (hi, Molly).

Question: What if API funded the whole study? If that means it's automatically corrupted, can you point to specific research that refutes it? Can you refute it, substantively that is?

Ivins: Fond as I am of many of API lobbyists I have known over the years, I am not quite sure I want those bozos calling the shots on global warming. I have watched them buy law and bend regulations for decades now, and although I admire their chutzpah, I am impelled to warn you: They have no scruples, they have no decency, and they have no shame. (See 50 years worth of reporting on the industry by The Texas Observer.) Also, they lie.

RESPONSE: This is a rather scurrilous charge. Which API lobbyists are you speaking of? You charge that "they lie," meaning they are lying now. What are they lying about, exactly?

Ivins: FYI: If you put "George W. Bush" and "lies" into the Google search engine, you get 250,000 references in nine-tenths of a second.

RESPONSE: Molly, let's be fair here. "William J. Clinton lies" got 65,000 hits in 0.27 seconds, and "Molly Ivins lies" got 5,480 hits in 0.24 seconds.

-----Original Message-----
From: Wheeler, Andrew (EPW)
Sent: Thursday, July 10, 2003 3:44 PM
To: Catanzaro, Michael (EPW)
Subject: Re: Molly Ivins

Yes, I suggest under jim,s name, where was this published?

Sent from my BlackBerry Wireless Handheld (www.BlackBerry.net)

-----Original Message-----

From: Catanzaro, Michael (EPW) <Michael_Catanzaro@epw.senate.gov>
To: Wheeler, Andrew (EPW) <Andrew_Wheeler@epw.senate.gov>
Sent: Thu Jul 10 18:38:47 2003
Subject: Molly Ivins

Andy,
I really want to respond to this. What do you think?

Molly Ivins: Little White House lies

By Molly Ivins

Published 2:15 a.m. PDT Thursday, June 26, 2003

AUSTIN, Texas -- You've got to hand it to those clever little problem-solvers at the White House. What a bunch of brainiacs. They have resolved the entire problem of global warming: They cut it out of the report!

This is genius. Everybody else is maundering on about the oceans rising and the polar icecaps melting and monster storms and hideous droughts, and these guys just ... edit it out.

"The editing eliminated references to many studies concluding that warming is at least partly caused by rising concentrations of smokestack and tailpipe emissions, and could threaten health and ecosystems," reports The New York Times. Presto -- poof!

What do they care about health and ecosystems? Think of the possibilities presented by this ingenious solution. Let's edit out AIDS and all problems with drugs both legal and illegal. We could get rid of Libya and Syria this way -- take 'em off the maps. We can do away with unemployment, the uninsured, heart disease, obesity and the coming Social Security crunch. We could try editing out death and taxes, but I don't think we should overreach right away. Just start with something simple, like years of scientific research on global warming, and blue pencil that sucker out of existence. Denial is not just a river in Egypt.

Inspiring as the remarkable Bush approach to resolving global warming is -- the simplicity of it, the beauty of it, I cannot get over it -- does it not suggest a certain cavalier je ne sais quoi about the future? What I mean is, is anybody there concerned about what happens to people?

I realize the energy industry and auto industry and other major campaign contributors would prefer to think global warming does not exist, but how long do you think it will take before reality catches up with all of us? The White House editors (hi, Karl) instead chose to insert a new study on global non-warming funded by ... ta-da! ... the American Petroleum Institute.

Dear old API, author of innumerable ringing editorials on the desperate need to leave the oil depletion allowance at 27 percent (certain Texas newspapers that shall remain nameless used to run those editorials without changing a single comma), is really swell at representing the oil bidness. Fond as I am of many of API lobbyists I have known over the years, I am not quite sure I want those bozos calling the shots on global warming. I have watched them buy law and bend regulations for decades now, and while I admire their chutzpah, I am impelled to warn you: They have no scruples, they have no decency, and they have no shame. (See 50 years worth of reporting on the industry by The Texas Observer.) Also, they lie.

Well now, danged if that doesn't bring us to the subject of lying and the White House. Let us set aside the vexing case of the missing weapons of mass destruction and focus on a few items closer to home. Anyone remember President Bush's 2002 State of the Union Address? No, no, not the one where he said Iraq

had a nuclear weapons program. The one where he said he was going to expand AmeriCorps by 50 percent, from 50,000 up to 75,000, because giving all those young people a chance to work their way through college by doing good for the community is so noble and effective.

"USA Freedom Corps will expand and improve the good efforts of AmeriCorps and Senior Corps to recruit more than 200,000 new volunteers," he said.

Last week, Bush and Republicans in Congress cut AmeriCorps by 80 percent. According to Jonathan Alter in Newsweek, Congress, under pressure, restored some of it, but it still leaves AmeriCorps with a 58 percent cut and tens of thousands of fewer participants out there teaching poor kids to read, helping old folks in nursing homes, setting up community gardens, and a thousand other good and useful tasks -- many of which get the young people started on careers in that kind of work.

Alter notes that restoring AmeriCorps to its current level would take \$185 million, about one-half of one percent of the president's latest tax cut for the rich. The radical Republicans in Congress, apparently egged on by a Heritage Foundation study from April 2003, have decided AmeriCorps is (gasp, shudder) a jobs program.

What have these people got against national service?

Speaking of said same tax cut, too bad about the children of the working poor. Congress just announced it's too busy to get around to the restoring the child tax credit to 6.5 million low-income families (known to The Wall Street Journal as "lucky duckies" because, you see, they pay little or no income tax. They only pay 19 percent of their meager incomes in other taxes.).

FYI: If you put "George W. Bush" and "lies" into the Google search engine, you get 250,000 references in nine-tenths of a second.

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ANDREW WHEELER, Majority Staff Director
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CEQ
202 PC

UNITED STATES SENATE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
Washington, DC 20510-6175

FAX TO: White House
Legislative Affairs

DATE: 6.19.03

PHONE: _____

Number of Pages 3
(Including Cover)

FAX: (202) 456-1806

Main Office - 456 Dirksen
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FILE CODE: 141-A CONGRESSIONAL CORRESPONDENCE

STATUS: PENDING

CORRES. DATE: 06/19/2003

RECEIVED DATE: 06/30/2003

ASSIGNED DATE: 06/30/2003

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FROM: JEFFORDS JAMES M.-I/VT

ORG: UNITED STATES SENATE

SALUTATION: DEAR SENATOR JEFFORDS

CONSTITUENT:

COMMITTEE: ENVIRONMENT AND PUBLIC WORKS

TO: PRESIDENT GEORGE W. BUSH

TO ORG: WHITE HOUSE

SUBJECT: CONCERN ABOUT EPA AND THE WHITE HOUSE DECISION TO OMIT DATA AND LANGUAGE PERTAINING TO CLIMATE CHANGE FROM THE "STATE OF THE ENVIRONMENT"

ASSIGNED: AIR & RADIATION

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*Michelle
Hiller*

Donna DeLeon

United States Senate
WASHINGTON, DC 20510

562475
CEQ
201 PC

June 19, 2003

President George W. Bush
The White House
1600 Pennsylvania Avenue NW
Washington, DC 20500

Dear President Bush:

We are deeply disturbed to read reports this morning that the Environmental Protection Agency (EPA) and the White House have decided to omit data and language pertaining to climate change from the Agency's upcoming "State of the Environment" report. We would like to know if this is true.

According to these reports, the White House Council on Environmental Quality (CEQ) and the Office of Management and Budget (OMB) made decisions to delete from the "State of the Environment" report scientifically sound, consensus-based conclusions about the human contributions to global warming that have been confirmed by the National Research Council and the Intergovernmental Panel on Climate Change. We would like to know why, and who within the Administration made this decision.

Perhaps most distressing are reports that Administration officials substituted into the report for the deleted language a reference to a study partially funded by the American Petroleum Institute that questions the National Research Council's conclusions.

If true, this action brings into question the ability and authority of the EPA or any agency within this Administration to publish unbiased scientific reports. This would dramatically weaken both Congressional and public confidence in the Administration to allow credible, peer-reviewed study to prevail over political agenda. If these reports are accurate, your Administration has done a serious disservice not only to the hard-working professionals at the EPA, but also to the American people and our future.

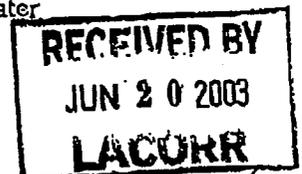
We request all drafts of the report as well as comments prepared by the EPA, OMB, and CEQ. We request a list of all participants involved in review of the document, including all Administration officials and entities outside the Administration. Furthermore, we ask that appropriate actions be taken regarding those responsible for doctoring this report.

Sincerely,

Jim Jeffords
James M. Jeffords
Ranking Member,
Environment and Public Works Committee

Bob Graham
Bob Graham
Ranking Member, Subcommittee on
Fisheries, Wildlife and Water

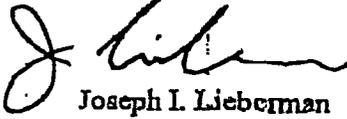
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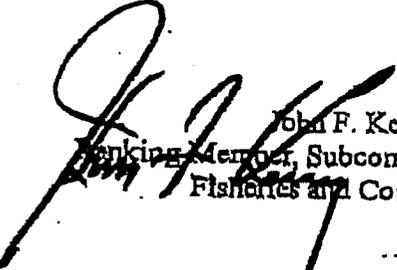


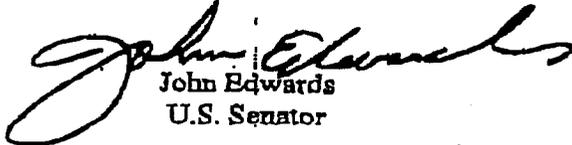
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President George W. Bush
June 19, 2003

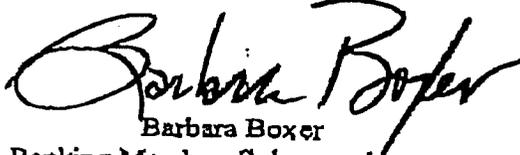
Page 2


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ACTION REQUESTED: DIRECT REPLY W/COPY

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DESCRIPTION OF INCOMING:

ID: 562485
MEDIA: FAX, DATED JUN 19, 2003
TO: PRESIDENT BUSH
FROM: THE HONORABLE JIM JEFFORDS
UNITED STATES SENATE
WASHINGTON, DC 20510
SUBJECT: CONCERN ABOUT EPA AND THE WHITE HOUSE DECISION TO OMIT DATA AND LANGUAGE PERTAINING TO CLIMATE CHANGE FROM THE "STATE OF THE ENVIRONMENT" REPORT & REQUEST ALL DRAFT FROM THE REPORT AND COMMENTS PREPARED BY EPA, OMB & CEQ ALSO LIST OF ALL PARTICIPANTS INVO

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DATE RECEIVED: 06/25/2003

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 - CODE = A
 - COMPLETED = DATE OF OUTGOING

REFER QUESTIONS AND ROUTING UPDATES TO RECORDS MANAGEMENT (ROOM 72, OEOB) EXT-62590 KEEP THIS WORKSHEET ATTACHED TO THE ORIGINAL INCOMING LETTER AT ALL TIMES AND SEND COMPLETED RECORD TO RECORDS MANAGEMENT.

002125

CEQ 005080

562475

Michelle Hiller
Donna DeLeon

U.S. States Senate
WASHINGTON, DC 20510

CEQ
201 PC

June 19, 2003

President George W. Bush
The White House
1600 Pennsylvania Avenue NW
Washington, DC 20500

Dear President Bush:

We are deeply disturbed to read reports this morning that the Environmental Protection Agency (EPA) and the White House have decided to omit data and language pertaining to climate change from the Agency's upcoming "State of the Environment" report. We would like to know if this is true.

According to these reports, the White House Council on Environmental Quality (CEQ) and the Office of Management and Budget (OMB) made decisions to delete from the "State of the Environment" report scientifically sound, consensus-based conclusions about the human contributions to global warming that have been confirmed by the National Research Council and the Intergovernmental Panel on Climate Change. We would like to know why, and who within the Administration made this decision.

Perhaps most distressing are reports that Administration officials substituted into the report for the deleted language a reference to a study partially funded by the American Petroleum Institute that questions the National Research Council's conclusions.

If true, this action brings into question the ability and authority of the EPA or any agency within this Administration to publish unbiased scientific reports. This would dramatically weaken both Congressional and public confidence in the Administration to allow credible, peer-reviewed study to prevail over political agenda. If these reports are accurate, your Administration has done a serious disservice not only to the hard-working professionals at the EPA, but also to the American people and our future.

We request all drafts of the report as well as comments prepared by the EPA, OMB, and CEQ. We request a list of all participants involved in review of the document, including all Administration officials and entities outside the Administration. Furthermore, we ask that appropriate actions be taken regarding those responsible for doctoring this report.

Sincerely,

Jim Jeffords
James M. Jeffords
Ranking Member,
Environment and Public Works Committee

Bob Graham
Bob Graham
Ranking Member, Subcommittee on
Fisheries, Wildlife and Water

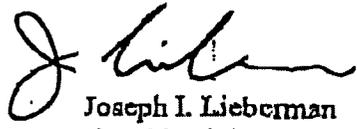
000689

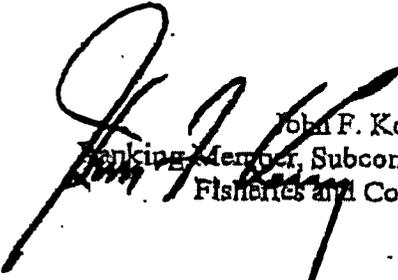
RECEIVED BY
JUN 20 2003
LACORR

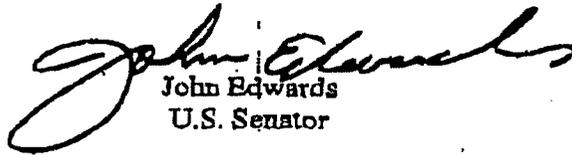
1178114
CEQ 005081

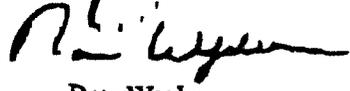
President George W. Bush
June 19, 2003

Page 2


Joseph I. Lieberman
Ranking Member,
Governmental Affairs Committee


John F. Kerry
Ranking Member, Subcommittee on Oceans,
Fisheries and Coast Guard


John Edwards
U.S. Senator


Ron Wyden
Ranking Member, Subcommittee on Public
Lands and Forests


Barbara Boxer
Ranking Member, Subcommittee on
Superfund and Waste Management

LACOE/ EW
6 19 3



JAMES M. DUNN, Oklahoma, Chairman
JAMES P. JEFFORDS, Vermont, Ranking Member

JOHN W. WARNER, Virginia
CHRISTOPHER R. BOND, Missouri
GEORGE VONNOVICII, Ohio
MICHAEL D. CRAPO, Idaho
LINCOLN CHAFFET, Rhode Island
JOHN CORNYN, Texas
LISA MURKOWSKI, Alaska
CRAIG THOMAS, Wyoming
WAYNE ALLARD, Colorado

MAX BAILEY, Montana
HARRY REID, Nevada
BOB GRAHAM, Florida
JO
KA
AO
TH
KL

ANDREW WHEELER, Majority Staff Director
KEN CONNOLLY, Minority Staff Director

CEQ
202 PC

UNITED STATES SENATE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
Washington, DC 20510-6175

FAX TO: White House
Legislative Affairs

DATE: 6.19.03

PHONE: _____

Number of Pages 3
(Including Cover)

FAX: (202) 456-1806

Main Office - 456 Dirksen
Phone: 202-224-8832
Fax: 202-224-1273

Hart Office - 508 Hart
Phone: 202-224-8832
Fax: 202-228-0574

- FROM:
- Ken Connolly, Staff Director
 - Alison Taylor, Chief Counsel
 - Daniel Brassotte, Professional Staff Member
 - Jo-ellen Darcy, Senior Policy Advisor
 - Shannon D. Hoyck-Williams, Prof. Staff Member
 - Chris Miller, Professional Staff Member
 - Patrick Rankin, Legislative Correspondent
 - Catharine Cyr Ransom, Professional Staff Member
 - Bryan Richardson, Professional Staff Member
 - Margaret Wetherald, Prof. Staff/Office Manager

- Ed Barron, Deputy Staff Director
- Mary Katherine Ishee, Counsel
- Geoff Brown, Professional Staff Member
- Carolyn Duprez, Executive Assistant
- Matthew Kooperman, Legis. Correspondent
- Tiffany Prather, Fellow
- Elizabeth Ryan, Research Assistant
- James Sandberg, Counsel
- Jeff Squires, Senior Policy Advisor
- Erik Steavens, Fellow
- Malcolm D. Woolf, Counsel

MESSAGE: _____



**OFFICE OF CONGRESSIONAL AND INTERGOVERNMENTAL RELATIONS
CORRESPONDENCE CONTROL SLIP**

CONTROL NO: AL-0300829 **ORIG. DUE DATE:** 07/14/2003
FILE CODE: 141-A CONGRESSIONAL CORRESPONDENCE
STATUS: PENDING **CORRES. DATE:** 06/19/2003
RECEIVED DATE: 06/30/2003
ASSIGNED DATE: 06/30/2003
CLOSED DATE:

FROM: JEFFORDS JAMES M.-I/VT
ORG: UNITED STATES SENATE
SALUTATION: DEAR SENATOR JEFFORDS
CONSTITUENT:
COMMITTEE: ENVIRONMENT AND PUBLIC WORKS

TO: PRESIDENT GEORGE W. BUSH
TO ORG: WHITE HOUSE
SUBJECT: CONCERN ABOUT EPA AND THE WHITE HOUSE DECISION TO OMIT DATA
AND LANGUAGE PERTAINING TO CLIMATE CHANGE FROM THE "STATE OF
THE ENVIRONMENT"

ASSIGNED: AIR & RADIATION

COPIES OF INCOMING PROVIDED TO: OCIR/DIANN FRANTZ

SIGNATURE: ASSISTANT ADMINISTRATOR
INSTs: MUST BE RETURNED TO OCIR (1304A) 4320 ARIEL RIOS, FOR REVIEW AND
DISPATCHING. INCLUDE "HARD" COPY OF SIGNED REPLY FOR
CONGRESSIONAL FILES (AL). DO NOT DATE LETTER.

PLEASE PREPARE RESPONSE FOR EACH SIGNER (7) SEE LIST ATTACHED

COMMENTS:

IMS: CASSAUNDR AEADES
IMT: CASSAUNDR AEADES/DC/USEPA/US

| | Assigned | Date Assigned | Code/Status | Date Completed by Assignee | Date Returned to OCIR: |
|------|----------|---------------|-------------|----------------------------|------------------------|
| Lead | OAR | 06/30/2003 | ACTION | - | - |
| | | | | | |

Dana M. Perino

07/11/2003 11:02:46 AM

Record Type: Record

To: See the distribution list at the bottom of this message

CC:

Subject: EPW: MOLLY IVINS

----- Forwarded by Dana M. Perino/CEQ/EOP on 07/11/2003 11:01 AM -----



"Catanzaro, Michael (EPW)" <Michael_Catanzaro@epw.senate.gov>

07/11/2003 10:43:51 AM

Record Type: Record

To: "Catanzaro, Michael (EPW)" <Michael_Catanzaro@epw.senate.gov>

CC:

Subject: EPW: MOLLY IVINS

Liberal columnist Molly Ivins took it upon herself to set the record straight on global warming in her June 26 column. She did that by criticizing the Bush Administration's "Orwellian" tactics--she got positively frothy over the White House's prudent deletion of scientifically questionable global warming language in an EPA draft report--and savaged President Bush for lying about this issue and many others.

President Bush, of course, is not lying or using Orwellian tactics. He's acting responsibly by following objective, fact-based science, and rejecting silly, counterproductive schemes such as the Kyoto Protocol, schemes that appeal to Ivins's 'New Europe' sensibilities.

Because she is so convinced of the President's mendacity, the EPW Committee examined Ivins's claims to determine their basis in fact, or in anything that looks remotely like fact. Unfortunately, Miss Ivins, whose column is nationally syndicated, appears to be, at best, terribly, woefully, misinformed.

Problem-solving worthy of Orwell
By Molly Ivins

IVINS: You've got to hand it to those clever little problem-solvers at the White House. What a bunch of brainiacs. They have resolved the entire problem of global warming: They cut it out of the report!

RESPONSE: What was cut out of the report, Molly? You don't say. The earlier draft of the EPA report introduces the "Global Issues" section with this sentence: "Climate change has global consequences for human health and the environment." A redraft of the final version instead begins: "The complexity of the Earth system and the interconnections among its components make it a scientific challenge to document change, diagnose its causes, and develop

CEQ 005087

useful projections of how natural variability and human actions may affect the global environment in the future."

Seems like sensible language, rooted in objective science. Don't believe us, Molly? Please, consult the National Academy of Sciences, which wrote in 2001:

"Because of the large and still uncertain level of natural variability inherent in the climate record and the uncertainties in the time histories of various forcing agents (and particularly aerosols), a causal linkage between the buildup of greenhouse gases in the atmosphere and the observed climate changes in the 20th Century cannot be unequivocally established."

And further, the NAS showed why EPA's initial claim about health impacts and climate change was scientifically baseless: "The understanding of the relationships between weather/climate and human health is in its infancy and, therefore, the health consequences of climate change are poorly understood. The costs, benefits, and availability of resources for adaptation are also uncertain."

IVINS: This is genius. Everybody else is maundering on about the oceans rising and the polar icecaps melting and monster storms and hideous droughts, and these guys just ... edit it out.

RESPONSE: Who's maundering, Molly? You? NRDC? The Sierra Club? Are these catastrophes you recount really occurring (or going to occur) because of fossil fuel use? Perhaps you should ask the American Geophysical Union, which found that the Arctic was warmer in 1935 than it is now. Take a look for yourself: "Two distinct warming periods from 1920 to 1945, and from 1975 to the present, are clearly evident ... compared with the global and hemispheric temperature rise, the high-latitude temperature increase was stronger in the late 1930s to early 1940's than in recent decades." Also remember, Molly, in the 20th century, 80 percent of the increased CO2 concentrations in the atmosphere occurred after 1940.

"Hideous droughts?" You mean, of course, because of fossil fuels inducing global warming. Molly, researchers with the National Oceanic and Atmospheric Administration found otherwise. In the last 700 years there have been two "mega-droughts" that lasted for two to four decades each. A sixteenth century mega-drought lasted 20 to thirty years and may have stretched from the West to the East Coast. According to Connie Woodhouse, one of the researchers at the University of Colorado, "There's this 20-year periodicity of drought, we're not sure what that is due to, but it seems to be fairly regular." Molly? What about monster storms? That's alarmist code for "severe weather events," like heat waves, induced by global warming. "The fact that it's hot for a week has nothing at all to do with global warming, which would be measured over decades, not days," says National Weather Service meteorologist Richard Tinker.

IVINS: "The editing eliminated references to many studies concluding that warming is at least partly caused by rising concentrations of smokestack and tailpipe emissions, and could threaten health and ecosystems," reports The New York Times. Presto -- poof!

FACT: Molly, you realize that you are relying on a statement that is essentially meaningless, yet couched in such a way as to dramatize the issue. Presto! You've been duped! Consider again: Is "at least partly caused" by "rising concentrations of smokestack and tailpipe emissions, and could threaten health and ecosystems." How much is partly, Molly? Can you quantify that for us? Does that mean .0006 percent? 5 percent? 85 percent? At what percent should we be concerned? "Could" threaten health and ecosystems? Isn't the science of global warming supposed to be, according to your lights, settled? Shouldn't it be "will" threaten health and ecosystems? Guess not. Don't forget what the National Academy of Sciences found in June 2001: "The understanding of the relationships between weather/climate and human health is in its infancy and, therefore, the health consequences of climate change are poorly understood. The costs, benefits, and availability of resources for adaptation are also uncertain."

IVINS: Inspiring as the remarkable Bush approach to resolving global warming is -- the simplicity of it, the beauty of it, I cannot get over it -- does it

not suggest a certain cavalier je ne sais quoi about the future? What I mean is, is anybody there concerned about what happens to people?

FACT: Yes, as a matter of fact, which is why President Bush proposed Clear Skies, the most aggressive presidential initiative in history to reduce power plant emissions. It would reduce emissions of sulfur dioxide, nitrogen oxides, and mercury by 70 percent by 2018. Yes, it addresses those emissions that have demonstrated health impacts on people's lives. Problem is, Molly, it can't get passed because environmentalists, presumably those folks you enthusiastically support, would rather obstruct Clear Skies in order to fundraise and play politics over regulating carbon dioxide, something that has no health impacts--we humans exhale it with every breath.

IVINS: I realize that the energy industry and the auto industry and other major campaign contributors would prefer to think global warming does not exist, but how long do you think it will take before reality catches up with all of us? The White House editors (hi, Karl) instead chose to insert a new study on global non-warming funded by -- ta-da! -- the American Petroleum Institute.

RESPONSE: First, Molly, it's not that it doesn't exist. The Earth has cooled and warmed for centuries. The key question is: what role do humans play? Not much at all--but you could only understand that if you read the scientific literature. Or maybe you have?

As for the API issue: Molly, did you know, or care to find out, that API funded less than 10 percent of the study? Did you know that researchers from the Harvard-Smithsonian Center for Astrophysics conducted the study? Had you read (or maybe you did) the Harvard-Smithsonian press release announcing the study, you would have found that most of the funding came from federal grants through NASA, the Air Force Office of Scientific Research, and the National Oceanic and Atmospheric Administration (hi, Molly).

Another question: What if API funded the whole study? If that means the study is automatically corrupted, would you at least deign to show us what's wrong with it? Can you refute it, any of it, substantively that is?

IVINS: Fond as I am of many of API lobbyists I have known over the years, I am not quite sure I want those bozos calling the shots on global warming. I have watched them buy law and bend regulations for decades now, and although I admire their chutzpah, I am impelled to warn you: They have no scruples, they have no decency, and they have no shame. (See 50 years worth of reporting on the industry by The Texas Observer.) Also, they lie.

RESPONSE: "Bozos." That's a brilliant, trenchant critique of API. "They lie." This is a scurrilous charge, bordering on libelous. Which API lobbyists are you speaking of? By asserting that, "they lie," you cast a wide net over current and past API lobbyists. You seem to be saying lying is part of their permanent condition. Specifically, Molly, what are they lying about?

IVINS: FYI: If you put "George W. Bush" and "lies" into the Google search engine, you get 250,000 references in nine-tenths of a second.

RESPONSE: Molly, let's be fair here. "Bill Clinton lies" got 122,000 hits in 0.27 seconds, and "Molly Ivins lies" got 5,480 hits in 0.24 seconds.

Message Sent To: _____

James Connaughton/CEQ/EOP@EOP
Phil Cooney/CEQ/EOP@EOP
Scott McClellan/WHO/EOP@Exchange@EOP
Jeanie S. Mamo/WHO/EOP@EOP
Brian R. Besanceney/WHO/EOP@EOP
Kameron L. Onley/CEQ/EOP@EOP
Kenneth L. Peel/CEQ/EOP@EOP
Elizabeth A. Stolpe/CEQ/EOP@EOP
Khary I. Cauthen/CEQ/EOP@EOP
Dennis R. Deziel/CEQ/EOP@EOP

0998_f_qcssh003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME:14-JUL-2003 11:37:45.00

SUBJECT:: Hey Joe, returned your call -- see below

TO:Joe.McMonigle@hq.doe.gov @ inet (Joe.McMonigle@hq.doe.gov,@ inet [UNKNOWN])
READ:UNKNOWN

CC:Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TEXT:

Quote from Page 17 of the National Research Council's June 2001 reprot,
Climate Change Science: An Analysis of Some Key Questions" :

"The Effect of Human Activities

Because of the large and still uncertain level of natural variability inherent in the climate record and the uncertainties in the time histories of the various forcing agents (and particularly areosols), a causal linkage between the buildup of greenhouse gases in the atmosphere and the observed climate changes during the 20th century cannot be unequivocally established."

1000_f_m7tsh003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME:14-JUL-2003 11:48:18.00

SUBJECT:: Executive Summary

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TEXT:
fyi

----- Forwarded by Dana M. Perino/CEQ/EOP on 07/14/2003
11:47 AM -----

LCamooso@DOC.GOV
07/14/2003 11:44:32 AM

Record Type: Record

To: KWhitworth@DOC.GOV
cc: See the distribution list at the bottom of this message
Subject: Executive Summary

Please let me know if I have left anyone off the list...

(See attached file: ccsp_white.pdf)

- ccsp_white.pdf

Message Copied

To: _____
jill.vieth@hq.doe.gov
julie.quick@usda.gov
Kathryn M. Harrington/OSTP/EOP@EOP
menglehart@DOC.GOV
povenmires1@state.gov
Scott.Smullen@noaa.gov
RBonjean@DOC.GOV
Dana M. Perino/CEQ/EOP@EOP
lharrington@epa.gov

===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
Unable to convert NSREOP0103:[ATTACH.D79]SREOP01300HST7M.001 to ASCII,
The following is a HEX DUMP:

255044462D312E340D25E2E3CFD30D0A33382030206F626A0D3C3C200D2F4C696E656172697A65
===== END ATTACHMENT 1 =====

CEQ 78 PC

NSF - '05 only
but could be '06
NOAA - could be special
over 2 yrs

 Kathie L. Olsen
07/14/2003 02:19:55 PM

Record Type: Record

To: Clifford J. Gabriel/OSTP/EOP@EOP, Phil Cooney/CEQ/EOP@EOP, Marcus Peacock/OMB/EOP@EOP
cc:
Subject: CCSP FY05 input

----- Forwarded by Kathie L. Olsen/OSTP/EOP on 07/14/2003 02:19 PM -----

 Gregory Williams <Gregory.J.Williams@nasa.gov>
07/14/2003 01:53:57 PM

Record Type: Record

To: Kathie L. Olsen/OSTP/EOP@EOP, David Halpern/OSTP/EOP@EOP, Jobi A. Parrish/OSTP/EOP@EOP
cc: mcleave@hq.nasa.gov
Subject: CCSP FY05 input

Kathie , Dave -

Attached is NASA's response to the action on potential FY05 items for the CCSP rollout.
Regards,
Greg Williams

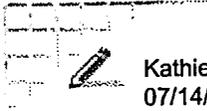
 - CCSPfy05.doc

(Handwritten scribble)

05)

15

001482



Kathie L. Olsen
07/14/2003 02:25:37 PM

Record Type: Record

To: Clifford J. Gabriel/OSTP/EOP@EOP, Phil Cooney/CEQ/EOP@EOP, Marcus Peacock/OMB/EOP@EOP
cc:
Subject: 1PM input

----- Forwarded by Kathie L. Olsen/OSTP/EOP on 07/14/2003 02:25 PM -----



Mary Glackin <Mary.Glackin@noaa.gov>
07/14/2003 02:17:51 PM

Record Type: Record

To: Kathie L. Olsen/OSTP/EOP@EOP
cc: See the distribution list at the bottom of this message
Subject: 1PM input

Kathie,

Attached are two documents. The first, titled "draft CCSP Release Initiative", I am sending at the request of Jim Mahoney. The second is the NOAA submission. I am also faxing these to your office. See you at 4pm. Mary



- Draft CCSP Release Initiative 7-03.doc



- NOAA CCSP FY05.doc

Message Copied To:

James R Mahoney <James.R.Mahoney@noaa.gov>
Mary Glackin <Mary.Glackin@noaa.gov>
David Goodrich <David.Goodrich@noaa.gov>
Vicki Horton <Vicki.Horton@noaa.gov>
Ahsha Tribble <Ahsha.Tribble@noaa.gov>
Conrad C Lautenbacher <Conrad.C.Lautenbacher@noaa.gov>
Scott Rayder <Scott.Rayder@noaa.gov>

CEQ 72 PC

More from NSF tomorrow.

National Science Foundation
Scientific Contribution to Earth Summit

The National Science Foundation is prepared to accelerate several integrated, and sustained efforts to provide information to meet critical challenges in the areas of climate and global change, disaster warning and mitigation, ecosystems, and environmental issues.

Carbon and Water Cycles \$11M in CC for 2002 and \$5.5M in WC for 2003 – increment of \$9M to accelerate research.

An acceleration of efforts to study the integrated carbon and water cycles will help us to better understand sources and sinks of carbon and how they function, and to effectively manage water resources through a deeper understanding of hydrologic systems and the factors that determine the distribution, availability, and quality of water.

HIAPER \$3M for accelerated operations

The new High-performance Instrumented Atmospheric Platform for Environmental Research (HIAPER) will become operational in late FY 2005. A more robust scientific operations plan would enable additional investigations into weather and storm prediction, climate change, and environmental science.

at top of troposphere - aerosols

Ocean Observations \$2M to develop OOI coordination office.

Acceleration of coordination activities, research, prototyping and development will pave the way for a robust investment in instrumentation and observation in anticipation of NSF's Ocean Observatories Initiative, an ambitious effort to develop a new capability for sustained in situ observations in the water column and on the sea floor.

Cyberinfrastructure \$10M to initiate investment in CI

An accelerated investment in the distributed computer, information and communication technologies, combined with personnel and integrating components, will provide a long-term platform to empower the modern scientific research endeavor. An accelerated investment in environmental cyberinfrastructure holds the promise of significantly advancing our capability for data analysis and modeling, yielding insights into a wide range of environmental issues.

interoperability

* **COSMIC (Constellation Observing System for Meteorology) - Taiwan**
Set for launch in 2005, COSMIC will enable inexpensive vertical profiles of temperature and moisture across the globe with high spatial and temporal resolution by intercepting GPS signals with a satellite-based receiver and inferring the deviations in each signal's straight-line path caused by temperature and moisture gradients.

70% more coverage for 3D water vapor

accelerating modeling of new info 43-5m

last

a multi-agency investment

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CEQ 72 PC

More from NSF tomorrow.

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at top of troposphere - aerosols

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interoperability

* **COSMIC** (Constellation Observing System for Meteorology) - *Taiwan*

Set for launch in 2005, COSMIC will enable inexpensive vertical profiles of temperature and moisture across the globe with high spatial and temporal resolution by intercepting GPS signals with a satellite-based receiver and inferring the deviations in each signal's straight-line path caused by temperature and moisture gradient

000710

1005_f_avpth003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:sbodman@doc.gov (sbodman@doc.gov [UNKNOWN])

CREATION DATE/TIME:14-JUL-2003 15:32:53.00

SUBJECT:: Cancellation of the July 24 IWGCCST meeting

TO:emsimmons@usaid.gov (emsimmons@usaid.gov [UNKNOWN])

READ:UNKNOWN

TO:steven_griles@ios.doi.gov (steven_griles@ios.doi.gov [UNKNOWN])

READ:UNKNOWN

TO:d.nelson@state.gov (d.nelson@state.gov [UNKNOWN])

READ:UNKNOWN

TO:fisher.linda@epa.gov (fisher.linda@epa.gov [UNKNOWN])

READ:UNKNOWN

TO:jrm@usda.gov (jrm@usda.gov [UNKNOWN])

READ:UNKNOWN

TO:gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])

READ:UNKNOWN

TO:emil.frankel@ost.dot.gov (emil.frankel@ost.dot.gov [UNKNOWN])

READ:UNKNOWN

TO:James_Andrews@onr.navy.mil (James_Andrews@onr.navy.mil [UNKNOWN])

READ:UNKNOWN

TO:Robert.Card@hq.doe.gov (Robert.Card@hq.doe.gov [UNKNOWN])

READ:UNKNOWN

TO:rcolwell@nsf.gov (rcolwell@nsf.gov [UNKNOWN])

READ:UNKNOWN

TO:Marcus Peacock (CN=Marcus Peacock/OU=OMB/O=EOP@EOP [OMB])

READ:UNKNOWN

TO:John H. Marburger (CN=John H. Marburger/OU=OSTP/O=EOP@EOP [OSTP])

READ:UNKNOWN

TO:James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])

READ:UNKNOWN

TO:eslater@osophs.dhhs.gov (eslater@osophs.dhhs.gov [UNKNOWN])

READ:UNKNOWN

TO:Kathie L. Olsen (CN=Kathie L. Olsen/OU=OSTP/O=EOP@EOP [OSTP])

READ:UNKNOWN

TO:conrad.c.lautenbacher@noaa.gov (conrad.c.lautenbacher@noaa.gov [UNKNOWN])

READ:UNKNOWN

CC:shawkins@doc.gov (shawkins@doc.gov [WHO])

READ:UNKNOWN

CC:Kwhitworth@doc.gov (Kwhitworth@doc.gov [UNKNOWN])

READ:UNKNOWN

CC:David.Conover@hq.doe.gov (David.Conover@hq.doe.gov [UNKNOWN])

Page 1

003387

CEQ 005104

1005_f_avpth003_ceq.txt

READ:UNKNOWN

CC:barbara_diehl@ios.doi.gov (barbara_diehl@ios.doi.gov [UNKNOWN])
READ:UNKNOWN

CC:Kleibacker.lu-ann@epa.gov (kleibacker.lu-ann@epa.gov [UNKNOWN])
READ:UNKNOWN

CC:Roberta L. Conde (CN=Roberta L. Conde/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC:Vicki.Horton@noaa.gov (vicki.Horton@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:yvonne.brown@ost.dot.gov (yvonne.brown@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

CC:KBarrett@usaid.gov (KBarrett@usaid.gov [UNKNOWN])
READ:UNKNOWN

CC:Scott.Rayder@noaa.gov (Scott.Rayder@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:richard.spinrad@navy.mil (richard.spinrad@navy.mil [UNKNOWN])
READ:UNKNOWN

CC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC:mcleave@hq.nasa.gov (mcleave@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:Lynn_Scarlett@ios.doi.gov (Lynn_Scarlett@ios.doi.gov [UNKNOWN])
READ:UNKNOWN

CC:catlettla@state.gov (catlettla@state.gov [UNKNOWN])
READ:UNKNOWN

CC:Karen_Y._Knutson@ovp.eop.gov (Karen_Y._Knutson@ovp.eop.gov [UNKNOWN])
READ:UNKNOWN

CC:Jobi A. Parrish (CN=Jobi A. Parrish/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

CC:watsonhl@state.gov (watsonhl@state.gov [UNKNOWN])
READ:UNKNOWN

CC:whohenst@OCE.USDA.gov (whohenst@OCE.USDA.gov [UNKNOWN])
READ:UNKNOWN

CC:Margarita.Gregg@noaa.gov (Margarita.Gregg@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:JAckerly@doc.gov (JAckerly@doc.gov [UNKNOWN])
READ:UNKNOWN

CC:RBonjean@doc.gov (RBonjean@doc.gov [UNKNOWN])
READ:UNKNOWN

CC:BotetVI@state.gov (BotetVI@state.gov [UNKNOWN])
READ:UNKNOWN

CC:PThorne@doc.gov (PThorne@doc.gov [UNKNOWN])
Page 2

1005_f_avpth003_ceq.txt

READ:UNKNOWN

CC:Pat.A.Simms@noaa.gov (Pat.A.Simms@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:Joy.Viars@hq.doe.gov (Joy.Viars@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:botetVI@state.gov (botetVI@state.gov [UNKNOWN])
READ:UNKNOWN

CC:jschafer@usaid.gov (jschafer@usaid.gov [UNKNOWN])
READ:UNKNOWN

CC:robert_c._mcnally@opd.eop.gov (robert_c._mcnally@opd.eop.gov [UNKNOWN])
READ:UNKNOWN

CC:reifsnyderDA@state.gov (reifsnyderDA@state.gov [UNKNOWN])
READ:UNKNOWN

CC:mmoore@osophs.dhhs.gov (mmoore@osophs.dhhs.gov [CEA])
READ:UNKNOWN

CC:Mleinen@nsf.gov (Mleinen@nsf.gov [UNKNOWN])
READ:UNKNOWN

CC:linda.lawson@ost.dot.gov (linda.lawson@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

CC:Kevin.Kolevar@hq.doe.gov (kevin.kolevar@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:Beale.john@epa.gov (Beale.john@epa.gov [UNKNOWN])
READ:UNKNOWN

CC:James.R.Mahoney@noaa.gov (James.R.Mahoney@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:gpaules@hq.nasa.gov (gpaules@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:ann_klee@ios.doi.gov (ann_klee@ios.doi.gov [UNKNOWN])
READ:UNKNOWN

TEXT:

This is to inform you that the next meeting of the Interagency Working Group on Climate Change Science and Technology (IWGCCST), scheduled for July 24 at 10:00 am, has been cancelled. The meeting is cancelled because: (1) the release of the Climate Change Science Program Strategic Plan is, coincidentally, expected to take place on that same day; and (2) the July 8 meeting of the Committee on Climate Change Science and Technology Integration (CCCSTI), co-hosted by Secretary Evans and Secretary Abraham, included many of the usual participants of the IWGCCST meetings. The purpose of the July 8 meeting was to describe the elements of the U.S. Climate Change Science Program to the principals, and to answer any questions they had, prior to the release of the Strategic Plan and its supporting documents.

The next meeting of the IWGCCST will take place, as scheduled on Thursday, September 25, from 10:00 a.m. to 12:15 p.m. at the Department of Commerce in Room 4830.

Thank you for your continued interest and cooperation. I will keep you

1005_f_avpth003_ceq.txt

informed concerning the release of the Climate Change Science Program Strategic Plan and its supporting documents.

For your information, there is a ministerial level Earth Observation Summit, sponsored by the U.S. Government, planned for July 31 with a 2-day workshop to follow. More details are available at the website: www.earthobservationsummit.gov.

1006_f_hvpth003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:sbodman@doc.gov (sbodman@doc.gov [UNKNOWN])

CREATION DATE/TIME:14-JUL-2003 15:32:57.00

SUBJECT:: Cancellation of the July 24 IWGCCST meeting

TO:emsimmons@usaid.gov (emsimmons@usaid.gov [UNKNOWN])
READ:UNKNOWN

TO:steven_griles@ios.doi.gov (steven_griles@ios.doi.gov [UNKNOWN])
READ:UNKNOWN

TO:d.nelson@state.gov (d.nelson@state.gov [UNKNOWN])
READ:UNKNOWN

TO:fisher.linda@epa.gov (fisher.linda@epa.gov [UNKNOWN])
READ:UNKNOWN

TO:jrm@usda.gov (jrm@usda.gov [UNKNOWN])
READ:UNKNOWN

TO:gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

TO:emil.frankel@ost.dot.gov (emil.frankel@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

TO:James_Andrews@onr.navy.mil (James_Andrews@onr.navy.mil [UNKNOWN])
READ:UNKNOWN

TO:Robert.Card@hq.doe.gov (Robert.Card@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

TO:rcolwell@nsf.gov (rcolwell@nsf.gov [UNKNOWN])
READ:UNKNOWN

TO:Marcus Peacock (CN=Marcus Peacock/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

TO:John H. Marburger (CN=John H. Marburger/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TO:James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:eslater@osophs.dhhs.gov (eslater@osophs.dhhs.gov [UNKNOWN])
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TO:Kathie L. Olsen (CN=Kathie L. Olsen/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TO:conrad.c.lautenbacher@noaa.gov (conrad.c.lautenbacher@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:shawkins@doc.gov (shawkins@doc.gov [WHO])
READ:UNKNOWN

CC:KWhitworth@doc.gov (KWhitworth@doc.gov [UNKNOWN])
READ:UNKNOWN

CC:David.Conover@hq.doe.gov (David.Conover@hq.doe.gov [UNKNOWN])

1006_f_hvpth003_ceq.txt

READ:UNKNOWN

CC:barbara_diehl@ios.doi.gov (barbara_diehl@ios.doi.gov [UNKNOWN])
READ:UNKNOWN

CC:Kleibacker.lu-ann@epa.gov (Kleibacker.lu-ann@epa.gov [UNKNOWN])
READ:UNKNOWN

CC:Roberta L. Conde (CN=Roberta L. Conde/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC:Vicki.Horton@noaa.gov (Vicki.Horton@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:yvonne.brown@ost.dot.gov (yvonne.brown@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

CC:KBarrett@usaid.gov (KBarrett@usaid.gov [UNKNOWN])
READ:UNKNOWN

CC:Scott.Rayder@noaa.gov (Scott.Rayder@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:richard.spinrad@navy.mil (richard.spinrad@navy.mil [UNKNOWN])
READ:UNKNOWN

CC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC:mcleave@hq.nasa.gov (mcleave@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:Lynn_Scarlett@ios.doi.gov (Lynn_Scarlett@ios.doi.gov [UNKNOWN])
READ:UNKNOWN

CC:catlettla@state.gov (catlettla@state.gov [UNKNOWN])
READ:UNKNOWN

CC:Karen_Y._Knutson@ovp.eop.gov (Karen_Y._Knutson@ovp.eop.gov [UNKNOWN])
READ:UNKNOWN

CC:Jobi A. Parrish (CN=Jobi A. Parrish/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

CC:watsonhl@state.gov (watsonhl@state.gov [UNKNOWN])
READ:UNKNOWN

CC:whohenst@OCE.USDA.gov (whohenst@OCE.USDA.gov [UNKNOWN])
READ:UNKNOWN

CC:Margarita.Gregg@noaa.gov (Margarita.Gregg@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:JAckerly@doc.gov (JAckerly@doc.gov [UNKNOWN])
READ:UNKNOWN

CC:RBonjean@doc.gov (RBonjean@doc.gov [UNKNOWN])
READ:UNKNOWN

CC:BotetVI@state.gov (BotetVI@state.gov [UNKNOWN])
READ:UNKNOWN

CC:PThorne@doc.gov (PThorne@doc.gov [UNKNOWN])
READ:UNKNOWN

1006_f_hvpth003_ceq.txt

READ:UNKNOWN

CC:Pat.A.Simms@noaa.gov (Pat.A.Simms@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:Joy.Viars@hq.doe.gov (Joy.Viars@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:botetVI@state.gov (botetVI@state.gov [UNKNOWN])
READ:UNKNOWN

CC:jschafer@usaid.gov (jschafer@usaid.gov [UNKNOWN])
READ:UNKNOWN

CC:robert_c._mcnally@opd.eop.gov (robert_c._mcnally@opd.eop.gov [UNKNOWN])
READ:UNKNOWN

CC:reifsnyderDA@state.gov (reifsnyderDA@state.gov [UNKNOWN])
READ:UNKNOWN

CC:mmoore@osophs.dhhs.gov (mmoore@osophs.dhhs.gov [CEA])
READ:UNKNOWN

CC:Mleinen@nsf.gov (Mleinen@nsf.gov [UNKNOWN])
READ:UNKNOWN

CC:linda.lawson@ost.dot.gov (linda.lawson@ost.dot.gov [UNKNOWN])
READ:UNKNOWN

CC:Kevin.Kolevar@hq.doe.gov (Kevin.Kolevar@hq.doe.gov [UNKNOWN])
READ:UNKNOWN

CC:Beale.john@epa.gov (Beale.john@epa.gov [UNKNOWN])
READ:UNKNOWN

CC:James.R.Mahoney@noaa.gov (James.R.Mahoney@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:gpaules@hq.nasa.gov (gpaules@hq.nasa.gov [UNKNOWN])
READ:UNKNOWN

CC:ann_klee@ios.doi.gov (ann_klee@ios.doi.gov [UNKNOWN])
READ:UNKNOWN

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Thank you for your continued interest and cooperation. I will keep you

1006_f_hvpth003_ceq.txt

informed concerning the release of the Climate Change Science Program Strategic Plan and its supporting documents.

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- att1.htm===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

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planned for July 31 with a 2-day workshop to follow. More details are available at the website: www.earthobservationsumit.gov.

===== END ATTACHMENT 1 =====

1008_f_5twth003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 14-JUL-2003 17:13:23.00

SUBJECT: Greenwire on Pew Report on Climate Change

TO: LCamooso@DOC.GOV (LCamooso@DOC.GOV [UNKNOWN])
READ: UNKNOWN

CC: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

CC: rbonjean@doc.gov (rbonjean@doc.gov [UNKNOWN])
READ: UNKNOWN

CC: povenmires1@state.gov (povenmires1@state.gov [UNKNOWN])
READ: UNKNOWN

CC: kathryn m. harrington (CN=kathryn m. harrington/OU=ostp/o=eop@eop [OSTP])
READ: UNKNOWN

CC: jill.vieth@hq.doe.gov (jill.vieth@hq.doe.gov [UNKNOWN])
READ: UNKNOWN

CC: Kameran L. Onley (CN=Kameran L. Onley/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

CC: lharrington@epa.gov (lharrington@epa.gov [UNKNOWN])
READ: UNKNOWN

CC: scott.smullen@noaa.gov (scott.smullen@noaa.gov [UNKNOWN])
READ: UNKNOWN

CC: menglehart@doc.gov (menglehart@doc.gov [UNKNOWN])
READ: UNKNOWN

CC: julie.quick@usda.gov (julie.quick@usda.gov [UNKNOWN])
READ: UNKNOWN

CC: kwhitworth@doc.gov (kwhitworth@doc.gov [UNKNOWN])
READ: UNKNOWN

TEXT:

Monday, July 14, 2003

CLIMATE CHANGE

Pew report envisions CO2 emissions on rise without national policy

Darren Samuelsohn, Greenwire senior reporter

U.S. carbon emissions are likely to rise between 15 and 50 percent over 2000 levels under a wide spectrum of energy scenarios absent a national policy that includes mandatory carbon dioxide caps, according to a new Pew Center on Global Climate Change report.

The Pew report, released last week, considers a range of imaginative and even extreme developments in U.S. energy supply and use, including fuels that account for more than 80 percent of the nation's greenhouse gas emissions. While the report's authors caution that the findings are not predictions, they note that their analysis can help policy-makers in considering the implications of a status-quo effort on technology,

Page 1

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CEQ 005114

emissions, economics, social and cultural behavior.

"If you want to get someplace in the future, you had better start now," Eileen Claussen, the center's president, said in summing up the report's conclusions. Other key findings in the report note that any policy and investment decisions made now will play a significant role in reducing energy-related CO2 emissions at a later date.

The Pew report started by considering three scenarios by which U.S. energy supplies might evolve over the next 30 years and then imposes a hypothetical CO2 policy freezing emissions at 2010 levels, followed by a 2 percent cut from 2010 to 2025 and then a 3 percent cut from 2026 to 2035. The CO2 plan was not based on any existing policy vehicle, but instead was drawn from a collaboration of ideas, many of which are being developed outside Washington, D.C., Claussen said.

The three base cases reflect divergent energy supply and demand trends. Under one scenario, called "Awash in Oil and Gas," abundant supplies of oil and natural gas remain available to U.S. consumers at low prices, allowing energy consumption to rise considerably and conventional technologies to dominate. CO2 emissions under this scenario rise 50 percent above 2000 levels by 2035.

The "Technology Triumphs" scenario considers numerous forces that push a successful commercialization of energy efficient technologies and subsequent lower CO2 emissions. States, private companies and consumer interest all play key roles in the development of such technologies, spawning an international market. Economic growth and energy consumption continue to grow, but CO2 emissions only rise 15 percent above 2000 levels in 2035.

Lastly, the Pew analysis runs through a "Turbulent World" scenario that sees U.S. energy markets continuously affected by both domestic and international events -- including terrorism, accidents and weather-related disasters -- driving heightened energy security concerns and a national program in response that aims to reduce dependence on imported oil. In this slowly growing economy, Pew said it would envision CO2 emissions rising 20 percent above 2000 levels in 2035.

In all three scenarios, a CO2 cap equivalent to Pew's hypothetical policy drives substantially lower emission levels in 2035. At the same time, the Pew analysis shows significant cuts in carbon intensity (a comparison of emissions to Gross Domestic Product), increases in natural gas consumption and a stable reliance on nuclear electricity generation. Coal consumption drops drastically in all three energy future scenarios with the hypothetical CO2 cap but then rises in all but one (Awash in Oil and Gas) due to improvements in emission control technology and also because of its effectiveness in the co-production of hydrogen.

The three energy future scenarios, coupled with the climate policies of a CO2 cap, do not throw a damper on U.S. economic growth, said Dr. Irving Mintzer, a lead author of the report and a member of the Global Business Network. Instead, GDP rises at about a 3 percent rate over the same 30-year period, from \$10 trillion in 2000 to \$22 trillion to \$28 trillion in 2035.

The Pew Center report incorporated ideas from Business Environmental Leadership Council, a group that includes industry officials from Toyota, American Electric Power Co., Alcoa Inc., BP America, Cummins Inc., and DuPont, state officials from the California Air Resources Board, and academia from Louisiana State University and Princeton University. The center is planning additional reports that turn from possible outcomes to suggestions concerning what it thinks should happen, Claussen said.

1008_f_5twth003_ceq.txt

LCamooso@DOC.GOV
07/14/2003 11:44:32 AM

Record Type: Record

To: KWhitworth@DOC.GOV
cc: See the distribution list at the bottom of this message
Subject: Executive Summary

Please let me know if I have left anyone off the list...

(See attached file: ccsp_white.pdf)

- ccsp_white.pdf

Message Copied

To: _____
jill.vieth@hq.doe.gov
julie.quick@usda.gov
Kathryn M. Harrington/OSTP/EOP@EOP
menglehart@DOC.GOV
povenmiresl@state.gov
Scott.Smullen@noaa.gov
RBonjean@DOC.GOV
Dana M. Perino/CEQ/EOP@EOP
lharrington@epa.gov

===== ATTACHMENT 1 =====

1011_f_yliuh003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Kathryn M. Harrington (CN=Kathryn M. Harrington/OU=OSTP/O=EOP [OSTP])

CREATION DATE/TIME:15-JUL-2003 13:47:16.00

SUBJECT:: Evans Op Ed

TO:RBonjean@doc.gov @ inet (RBonjean@doc.gov @ inet [UNKNOWN])
READ:UNKNOWN

TO:LCamooso@doc.gov @ inet (LCamooso@doc.gov @ inet [UNKNOWN])
READ:UNKNOWN

TO:Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

CC:John H. Marburger (CN=John H. Marburger/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

TEXT:
Hi,

Jack passed along the draft of Sec Evan's Op Ed, and I wanted to check if this is the same op ed referenced on the Monday call. Or is there yet another piece, signed by Abraham, that will speak more directly to the CCSP (Climate Change Science Program) Strategic Plan?

Thanks - Kathryn

1012_f_cwiuh003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:RBonjean@DOC.GOV (RBonjean@DOC.GOV [UNKNOWN])

CREATION DATE/TIME:15-JUL-2003 13:51:52.00

SUBJECT:: Re: Evans Op Ed

TO:Kathryn M. Harrington (CN=Kathryn M. Harrington/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

CC:John H. Marburger (CN=John H. Marburger/OU=OSTP/O=EOP@EOP [OSTP])
READ:UNKNOWN

CC:LCamooso@DOC.GOV (LCamooso@DOC.GOV [UNKNOWN])
READ:UNKNOWN

CC:Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TEXT:

I believe we have two op-eds: one for the CCSP and one for the Earth Observation Summit. Lisa can you have the NOAA folks send around the CCSP op-ed when it is ready?

kharring@ostp.eop

.gov

To

07/15/2003 01:46

PM

CC

jmarburg@ostp.eop.gov

Subject

Evans Op Ed

Dana_M._Perino@ceq.eop.gov,
RBonjean@doc.gov, LCamooso@doc.gov

Hi,

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Thanks - Kathryn

1015_f_x9yuh003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:LCamooso@DOC.GOV (LCamooso@DOC.GOV [UNKNOWN])

CREATION DATE/TIME:15-JUL-2003 14:19:33.00

SUBJECT:: Re: Evans Op Ed

TO:RBonjean@DOC.GOV (RBonjean@DOC.GOV [UNKNOWN])

READ:UNKNOWN

CC:John H. Marburger (CN=John H. Marburger/OU=OSTP/O=EOP@EOP [OSTP])

READ:UNKNOWN

CC:Kathryn M. Harrington (CN=Kathryn M. Harrington/OU=OSTP/O=EOP@EOP [OSTP])

READ:UNKNOWN

CC:Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP@EOP [CEQ])

READ:UNKNOWN

TEXT:

it's in the final edit stages here, I'll send asap...

Ron
Bonjean/HCHB/Osne
t

07/15/2003 01:49
PM

kharring@ostp.eop.gov

Dana_M._Perino@ceq.eop.gov,
jmarburg@ostp.eop.gov,
LCamooso@doc.gov

Subject
Re: Evans Op Ed(Document link: Lisa
Camooso)

To

cc

I believe we have two op-eds: one for the CCSP and one for the Earth
Observation Summit. Lisa can you have the NOAA folks send around the
CCSP op-ed when it is ready?

kharring@ostp.eop
.gov

07/15/2003 01:46
PM

Dana_M._Perino@ceq.eop.gov,
RBonjean@doc.gov, LCamooso@doc.gov

jmarburg@ostp.eop.gov

Evans Op Ed

Subject

To

cc

1015_f_x9yuh003_ceq.txt

Hi,

Jack passed along the draft of Sec Evan's Op Ed, and I wanted to check if this is the same op ed referenced on the Monday call. Or is there yet another piece, signed by Abraham, that will speak more directly to the CCSP (Climate Change Science Program) Strategic Plan?

Thanks - Kathryn

CEQ 75 PC

-EXECUTIVE OFFICE OF THE PRESIDENT-



**COUNCIL ON
ENVIRONMENTAL
QUALITY**

730 Jackson Place, NW
Washington, DC 20503

PHONE: (202) 456-6224
FAX: (202) 456-2710

| | | | |
|--------------|---|---------------|-------------------------------------|
| TO: | Kathie Olsen
Cliff Gabriel
Ann Carlson | | |
| FROM: | Phil Cooney | | |
| DATE: | 07/18/03 | PAGES: | 4
(INCLUDING COVER SHEET) |

COMMENTS: Chairman Connaughton's comments.

The document(s) accompanying this FAX transmission may contain information, which is confidential and/or sensitive. The information is intended only for use by the individual or entity named on this transmission sheet. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of any action in reliance on the contents of this faxed information is strictly prohibited, and that the documents should be returned to this office immediately. In this regard, if you have received this FAX in error, please notify us by telephone immediately so that we can arrange for the return of the original document(s) to us.

002062

CEQ 005125

1077_f_xcwyh003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Ahsha Tribble <Ahsha.Tribble@noaa.gov> (Ahsha Tribble <Ahsha.Tribble@noaa.gov> [UNKNOWN])

CREATION DATE/TIME: 18-JUL-2003 16:51:28.00

SUBJECT:: CCSP Strategic Plan Release

TO: CCSP_INFO@usgcrp.gov (CCSP_INFO@usgcrp.gov [UNKNOWN])
READ: UNKNOWN

TO: gant@niehs.nih.gov (gant@niehs.nih.gov [UNKNOWN])
READ: UNKNOWN

TO: CCSP@usgcrp.gov (CCSP@usgcrp.gov [UNKNOWN])
READ: UNKNOWN

CC: msweeney@nasa.gov (msweeney@nasa.gov [UNKNOWN])
READ: UNKNOWN

BCC: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])
READ: UNKNOWN

TEXT:

This email is sent on behalf of Dr. Mahoney:

In effort to recognize the agencies and departments involved in the development of the Strategic Plan for the Climate Change Science Program (CCSP), a CCSP principal from each agency or department is requested to attend the rollout of the Plan. This representative should also be available to the press immediately following the release.

We also ask that you extend an invitation to your political appointees. Their participation is encouraged, and they will be recognized.

Event: Press Release of the Strategic Plan for CCSP
Date: Thursday, July 24, 2003
Time: 10:30 AM
Location: HCHB 4830

Note that space is limited. Please RSVP via email to Ahsha.Tribble@noaa.gov and CC Vicki.Horton@noaa.gov with the names of those representing your agency or department no later than COB Tuesday, July 22, 2003.

Thank you,
Ahsha Tribble

--

Ahsha N. Tribble, Ph.D.
Technical Chief of Staff
Office of Assistant Secretary of Commerce
For Oceans and Atmosphere
HCHB/Room 5804
14th & Constitution Ave, NW
Washington, DC 20230
202-482-5920 (DoC)
202-482-6318 (Fax)
202-419-3485 (CCSP)

1078_f_bdwyh003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Ahsha Tribble <Ahsha.Tribble@noaa.gov> (Ahsha Tribble <Ahsha.Tribble@noaa.gov> [UNKNOWN])

CREATION DATE/TIME: 18-JUL-2003 16:51:33.00

SUBJECT: CCSP Strategic Plan Release

TO: CCSP_INFO@usgcrp.gov (CCSP_INFO@usgcrp.gov [UNKNOWN])
READ: UNKNOWN

TO: gant@niehs.nih.gov (gant@niehs.nih.gov [UNKNOWN])
READ: UNKNOWN

TO: CCSP@usgcrp.gov (CCSP@usgcrp.gov [UNKNOWN])
READ: UNKNOWN

CC: msweeney@nasa.gov (msweeney@nasa.gov [UNKNOWN])
READ: UNKNOWN

BCC: Bryan J. Hannegan (CN=Bryan J. Hannegan/OU=CEQ/O=EOP [CEQ])
READ: UNKNOWN

TEXT:

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Date: Thursday, July 24, 2003
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Note that space is limited. Please RSVP via email to Ahsha.Tribble@noaa.gov and CC Vicki.Horton@noaa.gov with the names of those representing your agency or department no later than COB Tuesday, July 22, 2003.

Thank you,
Ahsha Tribble

--

Ahsha N. Tribble, Ph.D.
Technical Chief of Staff
Office of Assistant Secretary of Commerce
For Oceans and Atmosphere
HCHB/Room 5804
14th & Constitution Ave, NW
Washington, DC 20230
202-482-5920 (DoC)
202-482-6318 (Fax)
202-419-3485 (CCSP)

1078_f_bdwyh003_ceq.txt

ÿ

CEQ 83
PC

-EXECUTIVE OFFICE OF THE PRESIDENT-



COUNCIL ON
ENVIRONMENTAL
QUALITY

730 Jackson Place, NW
Washington, DC 20503

PHONE: (202) 456-6224
FAX: (202) 456-2710

202 408 9674

TO: Carla Sullivan

FROM: Phil Cooney

DATE: 7/19/03 PAGES: 2
(INCLUDING COVER SHEET)

COMMENTS: Hey! sorry I'm late! Phil

The document(s) accompanying this FAX transmission may contain information, which is confidential and/or sensitive. The information is intended only for use by the individual or entity named on this transmission sheet. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of any action in reliance on the contents of this faxed information is strictly prohibited, and that the documents should be returned to this office immediately. In this regard, if you have received this FAX in error, please notify us by telephone immediately so that we can arrange for the return of the original document(s) to us.

000701

CEQ 84 PC

NATIONAL SCIENCE AND TECHNOLOGY COUNCIL
CONCURRENCE SHEET

RETURN BY Monday, July 21, 2003

Please check the applicable option, sign in space provided, and return by fax to addressee below.

NSTC Report Title: *The US Climate Change Science Program Vision for the Program and Highlights of the Scientific Strategic Plan, and Strategic Plan for the Climate Change Science Program.*

- A. I approve of the attached report.
- B. I approve of the attached report and recommend minor editing [attach editorial comments].
- C. I request that the attached comments on the report be considered prior to its being finalized.
- D. This report does not directly apply to this agency, but I do not object to its being cleared.

Philip A. Cooney
Signature

Name: Philip A. Cooney Title: Chief of Staff

CEQ 7/19/03 202 456 6224
Department/Agency Date Telephone

Return by FAX to: 202-408-9674
Carla Sullivan, NSTC Committee on Environment and Natural Resources, Executive Secretary 202-482-5921, Carla.Sullivan@noaa.gov.

000815

CEQ 005134

1092_f_487zh003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 19-JUL-2003 17:29:42.00

SUBJECT:: Re: NSTC clearance of CCSP documents

TO: Carla Sullivan <Carla.Sullivan@noaa.gov> (Carla Sullivan
<Carla.Sullivan@noaa.gov> [UNKNOWN])

READ: UNKNOWN

TEXT:

Carla, I have signed the form, indicating CEQ's approval -- to be faxed to you on Monday. Apologies for being late -- last week was a blur. Best, Phil

Carla Sullivan <Carla.Sullivan@noaa.gov>

07/17/2003 04:05:06 PM

Record Type: Record

To: See the distribution list at the bottom of this message

cc: See the distribution list at the bottom of this message

Subject: NSTC clearance of CCSP documents

All:

I have received copies of the agency clearances from OMB, which satisfies the CENR process as well.

In order to have the proper documentation in the CENR/NSTC records, however, I've attached a concurrence memo and sign-off sheet for your signature, so that we can have a hard copy in the files.

Please fax this back this afternoon if possible (202-408-9674), and let me know if you have any questions.

Carla Sullivan
CENR Executive Secretary
202-482-5921

- CCSP CENR clearance.doc
- Carla.Sullivan.vcf

Message Sent

To:

Kathie L. Olsen/OSTP/EOP@EOP

Marcus Peacock/OMB/EOP@EOP

Phil Cooney/CEQ/EOP@EOP

Conrad C Lautenbacher <Conrad.C.Lautenbacher@noaa.gov>

"gilman.paul" <gilman.paul@epa.gov>

Message Copied

To:

Ann B. Carlson/OSTP/EOP@EOP

Page 1

003460

CEQ 005136

1092_f_487zh003_ceq.txt

Erin Wuchte/OMB/EOP@EOP

"matthews.lisa" <matthews.lisa@epa.gov>

James R Mahoney <James.R.Mahoney@noaa.gov>

Ahsha Tribble <Ahsha.Tribble@noaa.gov>

===== ATTACHMENT 1 =====

1094_f_hwezh003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Carla Sullivan <Carla.Sullivan@noaa.gov> (Carla Sullivan
<Carla.Sullivan@noaa.gov> [UNKNOWN])

CREATION DATE/TIME:21-JUL-2003 07:37:44.00

SUBJECT:: Re: NSTC clearance of CCSP documents

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TEXT:

Thanks, Phil. No problem with it getting here this a.m. -- we just needed the signed form for our files in order to get the NSTC seal on the final printed version.

Have a "less-blurry" week (although this one has all the potential to be blurrier!)

ccs

Phil_Cooney@ceq.eop.gov wrote:

> Carla, I have signed the form, indicating CEQ's approval -- to be faxed to you

> on Monday. Apologies for being late -- last week was a blur. Best, Phil

>

>

> (Embedded
> image moved Carla Sullivan <Carla.Sullivan@noaa.gov>
> to file: 07/17/2003 04:05:06 PM
> pic24444.pcx)

>

>

> Record Type: Record

>

> To: See the distribution list at the bottom of this message

>

> cc: See the distribution list at the bottom of this message

> Subject: NSTC clearance of CCSP documents

>

> All:

>

> I have received copies of the agency clearances from OMB, which satisfies the CENR process as well.

>

> In order to have the proper documentation in the CENR/NSTC records, however, I've attached a concurrence memo and sign-off sheet for your signature, so that we can have a hard copy in the files.

>

> Please fax this back this afternoon if possible (202-408-9674), and let me know if you have any questions.

>

> Carla Sullivan
> CENR Executive Secretary
> 202-482-5921

>

>

>

>

>
(application/msword)

Name: CCSP CENR clearance.doc
Type: WINWORD File

Page 1

003461

CEQ 005139

> 1094_f_hwezh003_ceq.txt
> CCSP CENR clearance.doc Encoding: base64
> Description: Microsoft word 4
> Download Status: Not downloaded with message
>
>

> -----
> Message Sent

To: _____
>
> Kathie L. Olsen/OSTP/EOP@EOP
> Marcus Peacock/OMB/EOP@EOP
> Phil Cooney/CEQ/EOP@EOP
> Conrad C Lautenbacher <Conrad.C.Lautenbacher@noaa.gov>
> "gilman.paul" <gilman.paul@epa.gov>
>

> Message Copied

To: _____
>
> Ann B. Carlson/OSTP/EOP@EOP
> Erin Wuchte/OMB/EOP@EOP
> "matthews.lisa" <matthews.lisa@epa.gov>
> James R Mahoney <James.R.Mahoney@noaa.gov>
> Ahsha Tribble <Ahsha.Tribble@noaa.gov>
>
>

> -----
> Name: pic24444.pcx
> pic24444.pcx Type: PCX Image
> (application/x-unknown-content-type-pcxfile)
> Encoding: base64
> Download Status: Not downloaded with message
> - Carla.Sullivan.vcf===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
begin:vcard
n:Sullivan;Carla
tel;cell:202-302-2965
tel;fax:202-482-1041
tel;work:202-482-5921
x-mozilla-html:FALSE
org:Office of the Under Secretary;NOAA
version:2.1
email;internet:carla.sullivan@noaa.gov
title:Policy Advisor
adr;quoted-printable;;;Department of Commerce Bldg., Rm 5811=0D=0A14th & Consti
tution Ave. NW=0D=0A;Washington;DC;20230;
fn:Carla Sullivan
end:vcard

===== END ATTACHMENT 1 =====

NATIONAL SCIENCE AND TECHNOLOGY COUNCIL
CONCURRENCE SHEET

RETURN BY Monday, July 21, 2003

Please check the applicable option, sign in space provided, and return by fax to addressee below.

NSTC Report Title: *The US Climate Change Science Program Vision for the Program and Highlights of the Scientific Strategic Plan, and Strategic Plan for the Climate Change Science Program.*

- A. I approve of the attached report.
- B. I approve of the attached report and recommend minor editing [attach editorial comments].
- C. I request that the attached comments on the report be considered prior to its being finalized.
- D. This report does not directly apply to this agency, but I do not object to its being cleared.

Philip A Cooney
Signature

Name: Philip A. Cooney Title: Chief of Staff

CEQ 7/19/03 202 456 6224
Department/Agency Date Telephone

Return by FAX to: 202-408-9674
Carla Sullivan, NSTC Committee on Environment and Natural Resources, Executive Secretary 202-482-5921, Carla.Sullivan@noaa.gov.

001484

-EXECUTIVE OFFICE OF THE PRESIDENT-



COUNCIL ON ENVIRONMENTAL QUALITY

730 Jackson Place, NW
Washington, DC 20503

PHONE: (202) 456-6224

FAX: (202) 456-2710

X 6-6021

TO: Stan Sokul

FROM: Phil Cooney

DATE: 7/21/03 PAGES: 4
(INCLUDING COVER SHEET)

COMMENTS: _____

The document(s) accompanying this FAX transmission may contain information, which is confidential and/or sensitive. The information is intended only for use by the individual or entity named on this transmission sheet. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or the taking of any action in reliance on the contents of this faxed information is strictly prohibited, and that the documents should be returned to this office immediately. In this regard, if you have received this FAX in error, please notify us by telephone immediately so that we can arrange for the return of the original document(s) to us

CEQ
205 PC

SENATE COMMITTEE ON GOVERNMENTAL AFFAIRS
SUBCOMMITTEE ON OVERSIGHT OF GOVERNMENT MANAGEMENT,
THE FEDERAL WORKFORCE, AND THE DISTRICT OF COLUMBIA

Senator Richard J. Durbin
Ranking Democratic Member

326 Dirksen Senate Office Building
Washington, DC 20510
Phone: 202-224-5538
Fax: 202-228-0454

TO: CEQ - congressional FAX: (202) 456-2710

FROM:

- Sue Hardesty
Professional Staff Member
- Emily Kirk
Counsel
- Brian McLaughlin
Staff Assistant

- Jan Brunner
Counsel
- Catherine Potter
Professional Staff Member
- John Daley
Staff Assistant

Date: 7/22/03

Pages: 4 (including cover sheet)

Comments:

P.
Cooney

000687

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United States Senate

COMMITTEE ON
GOVERNMENTAL AFFAIRS

WASHINGTON, DC 20510-6250

July 22, 2003

The Honorable Joshua B. Bolten
Director, Office of Management and Budget
The Executive Office of the President
725 17th Street, NW
Washington, DC 20503

The Honorable James L. Connaughton
Chair, Council on Environmental Quality
The Executive Office of the President
722 Jackson Place, NW
Washington, DC 20503

Dear Mr. Bolten and Mr. Connaughton:

I am writing to express my concern about the attempt by the Office of Management and Budget and the Council on Environmental Quality to suppress the facts about one of the most significant environmental crises we face: global warming. Specifically, news reports indicate that officials in the Council for Environmental Quality (CEQ), Office of Management and Budget (OMB), and possibly other Administration offices, pressured the Environmental Protection Agency (EPA) to significantly alter the climate change section in a report by the EPA entitled Draft Report on the Environment.

The first EPA draft included a section on global issues which began, "Climate change has global consequences for human health and the environment." Your offices, and possibly other Administration offices, proposed changing this opening to "The complexity of the Earth system and the interconnections among its components make it a scientific challenge to document change, diagnose its causes, and develop useful projections of how natural variability and human actions may affect the global environment in the future."

The EPA decided to reject many of the changes proposed by your offices and possibly other Administration offices, saying that the White House proposal "no longer accurately represents scientific consensus on climate change." However, under pressure from your offices and possibly other Administration offices, the EPA shortened and diluted the text in the climate change section so that it reads simply, "The issue of global

Mr. Bolten and Mr. Connaughton, Page 2 of 3

climate change involves changes in the radiative balance of the Earth—the balance between energy received from the sun and emitted from Earth. This report does not attempt to address the complexities of this issue.”

Leading scientists from a variety of disciplines have reached consensus that our climate is changing, including members from the Intergovernmental Panel on Climate Change (IPCC), a United Nations panel which includes over 2,500 scientists representing more than 100 countries. As Dr. Robert Watson, then Chairman of the IPCC, said in 2001, “The overwhelming majority of scientific experts, whilst recognizing that scientific uncertainties exist, nonetheless believe that human-induced climate change is already occurring and that future change is inevitable.”

Numerous reports have explained how human impacts are contributing to global warming, and have detailed the many detrimental effects of global warming. The National Research Council of the National Academies states in a report released in March 2003, “as a result of global emissions of greenhouse gases, Earth’s mean surface temperature is expected to rise by 1-3.5 C (1.8 to 6.3 F) over the next century, and changes in Arctic Alaska are expected to be even greater (Houghton et. al. 1995, 1996). ... Ice cover in the Arctic Ocean has been shrinking by about 3% per decade over the past 20 years (Johannessen et al. 1999) ... If the trend were to continue, within 50 years the sea ice could disappear entirely in the summer.”

According to the National Climatic Data Center, there is growing evidence of more extreme precipitation events than in the past. Precipitation over land surfaces has increased in the mid- and high- latitudes and decreased in the subtropics and tropics. The IPCC also observes that several pieces of evidence exist to indicate that global warming is already occurring, including shrinking glaciers, thawing permafrost, earlier break-up of river and lake ice, lengthening of mid-to high- latitude growing seasons, poleward and altitudinal shifts of plant and animal ranges, declines in some animal and plant populations, and earlier insect emergence.

A report published in April 2003 by the Union of Concerned Scientists and the Ecological Society of America details some of the very serious consequences of global warming in the Great Lakes Region. This report found that by the end of the 21st century, summer temperatures in Illinois will generally resemble that of current east Texas. Such a dramatic climate shift could significantly harm our economy, particularly our agricultural economy and other endeavors dependent on the weather. In addition, Dr. Andrew Derocher, a biologist and leading expert on Arctic ecology, stated in a scientific presentation at the beginning of this year that global warming could drive polar bears to extinction within 100 years.

Given the incredible amount of research on global warming and its damaging effects, I am seriously troubled by pressure exerted by your offices and possibly other Administration offices to eliminate decisive statements about global warming in the EPA’s Draft Report on the Environment. For this reason, I would appreciate your providing me with responses to the following questions:

Mr. Bolten and Mr. Connaughton, Page 3 of 3

- What is the OMB and CEQ protocol for how and under what circumstances agency publications are reviewed?
- Was the protocol discussed above followed when reviewing the EPA Draft Report on the Environment? Please explain.
- When OMB and CEQ officials seek to alter statements about scientific findings or the scientific analysis of agencies, are those alterations peer-reviewed or otherwise vetted or confirmed by scientific experts and/or sources?
- On what basis did OMB and CEQ officials seek substantial changes to the climate change section of the EPA Draft Report on the Environment?
- What are your offices doing, individually and in coordination with other offices and agencies within the Administration, to address global warming and its effects, aside from conducting studies?

Despite the efforts of OMB, CEQ and possibly other Administration offices to censor the facts, global warming continues to worsen. I urge you to give agencies the freedom to be forthright with the public about information regarding our environment, economy, and public health, and I respectfully ask you to take action to address the problem of global warming.

Sincerely,



Richard J. Durbin
Ranking Member, Senate Subcommittee on
Oversight of Government Management, the Federal
Workforce, and the District of Columbia

MEETING AGENDA

July 23, 2003

1. Update on rollout plan for the CCSP
2. Overview of the Earth Observation Summit (goals of the meeting, invitees, outline)
3. Communications outreach for the Earth Observation Summit
4. Action items for meeting attendees

Agenda for Climate Change Strategic Plan (CCSP) Rollout
U.S. Department of Commerce
1401 Constitution Avenue – Room 4830
July 24, 2003
10:00 A.M.

Introduction

Deputy Secretary Sam Bodman, U.S. Department of Commerce
Welcome and Introduction

Secretary Spencer Abraham, U.S. Department of Energy
Background on Blue Team / Significance of press conference

Secretary Don Evans, U.S. Department of Commerce
CCSP Significance / Financial Commitment

Dr. John H. Marburger, Science Advisor to the President
Director, Office of Science and Technology Policy
Role of OSTP in climate science

Under Secretary Bob Card, U.S. Department of Energy
Specifics of Energy role in CCSP

VADM Conrad Lautenbacher, Under Secretary for NOAA
Earth Observing Summit announcement

Under Secretary James Mahoney, NOAA
CCSP specifics

002030

Climate Change Science Program Strategic Plan

Executive Summary

*Building a Course for Greater Climate
Understanding*

*"When we make decisions, we want to make sure we
do so on sound science, not what sounds good, but
what is real."*

President George W. Bush, Feb. 14, 2002

1181_f_uq82i003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME:24-JUL-2003 15:47:09.00

SUBJECT:: JOHN -- SEE BELOW

TO:joh.heilprin@ap.org @ inet (joh.heilprin@ap.org @ inet [UNKNOWN])
READ:UNKNOWN

BCC:Elizabeth A. stolpe (CN=Elizabeth A. stolpe/OU=CEQ/O=EOP [CEQ])
READ:UNKNOWN

BCC:Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP [CEQ])
READ:UNKNOWN

BCC:Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP [CEQ])
READ:UNKNOWN

BCC:Khary I. Cauthen (CN=Khary I. Cauthen/OU=CEQ/O=EOP [CEQ])
READ:UNKNOWN

BCC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])
READ:UNKNOWN

BCC:michael_catanzaro@epw.senate.gov @ inet (michael_catanzaro@epw.senate.gov @
inet [UNKNOWN])
READ:UNKNOWN

TEXT:

John -- good to see you today. Did you ask Phil Clapp if he doubles as
Rip Van Winkle and missed 8 years of the Clinton Administration?
... "This would have been a great research program if it had been
announced by the first President Bush 10 years ago."

White House wants more research on Mother Nature's role in global warming
WASHINGTON (AP) □* The white House on Thursday will issue a revised 10-year
global warming research plan that sets five goals, chief among them
identifying "natural variability" in climate change, an effort that
environmentalists say diverts the focus away from man-made pollution.
The second goal listed by the Bush administration is to find better ways
of measuring climate effects from burning fossil fuels, industrial
production of warming gases and changes in land use. The 364-page plan
emphasizes the difficulties but also the importance of reaching that goal.
"These changes have several important climate effects, some of which can
be quantified only poorly at present," say summaries obtained by The
Associated Press. Managing the potential human contributions to global
warming is described as "a capstone issue for our generation and those to
follow."

Other goals are to reduce uncertainty in climate forecasting; to better
understand how changes in climate affect human, wildlife and plant

Page 1

003332

CEQ 005156

communities; and to find more exact ways of calculating the risks of global warming.

The administration also will ask Congress for a new \$103 million, two-year initiative to speed up "high priority" research on carbon pollution, aerosols and oceans and determine the best ways to compile and disseminate information about them, Assistant Commerce Secretary James Mahoney told the AP. He said that effort would be included in President Bush's budget proposals for 2005 and 2006 and would draw some of its funds from the existing \$1.75 billion Climate Change Science Program.

The new plan and funding initiative are being presented by Commerce Secretary Don Evans and Energy Secretary Spencer Abraham.

An earlier version was roundly criticized by a panel of top climate experts at the National Academy of Sciences, who said it didn't set hard priorities and lacked a clear, guiding vision and a specific timetable of goals.

"We've tried to take all of the academy's recommendations into account," Mahoney said. "The greatest focus is on what we can deliver in the shortest period."

He said more than 250 people worked on the plan, which envisions no fewer than 21 separate reports on varying aspects of climate change being produced over the next four years.

Carbon dioxide from burning oil and coal is blamed by many scientists for contributing to a "greenhouse" or warming effect on global climates.

The Bush administration is the first to comply with Congress' 1990 mandate that a 10-year climate change research plan be created. Lawmakers also said such a plan should be updated every three years.

The new plan revises a draft released late last year which focused on making better economic projections of possible climate policy changes and tighter coordination of more than a dozen federal agencies' efforts.

Lester Brown, founder of the Earth Policy Institute, and Philip Clapp, president of National Environmental Trust, criticized the administration for focusing on natural causes of global warming and reopening scientific issues already adequately addressed by the academy and the United Nations' scientific panel.

"It seems to me that it's an effort to postpone doing anything meaningful on the climate issue," said Brown, who called for more research on climate warming effects on crop production and water shortages.

Clapp predicted that "most climate scientists around the world will see this as fiddling while Rome burns. ... This would have been a great research program if it had been announced by the first President Bush 10 years ago."

Annie Petsonk, an Environmental Defense lawyer who helped craft the first Bush's policy while working in his administration's Justice Department, said there is enough scientific certainty to begin taking action now to reduce warming.

"Where the administration has thought to take any action at all has been to delete climate references from reports and to try to repudiate the science that says global warming is happening now," she said.

Bush and his advisers have adopted the stance that reducing emissions through costly near-term measures is unjustified, and that scientific forecasting of climate change is too imprecise to agree to long-term, international, mandatory cuts in greenhouse gas emissions.

Mahoney said the administration has been careful to distinguish between science and policy.

"We can't move the science faster than it goes," he said. "At any point in time, there can be debates about the policy, but our job is to structure our information to be the most helpful."

1188_f_sma2i003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME: 24-JUL-2003 16:15:10.00

SUBJECT: Full set of clips in text re: climate change announcement

TO: Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Kameron L. Onley (CN=Kameron L. Onley/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: Bryan J. Hannegan (CN=Bryan J. Hannegan/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TO: James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@EOP [CEQ])
READ: UNKNOWN

TEXT:

----- Forwarded by Dana M. Perino/CEQ/EOP on 07/24/2003
04:13 PM -----

Joshua J. Chinsky
07/24/2003 03:49:17 PM
Record Type: Record

To: Dana M. Perino/CEQ/EOP@EOP
cc:
bcc:
Subject: Re: AP: white House to Unveil Global warming Plan (NYT,
USATtook the AP story)

Dana,
I hope the following stories are what you wanted.
-Josh

A version of the AP story ran in the Hamilton Spectator (Ontario, Canada),
and The Standard (St. Catharines).

This came from Knight Ridder. It also appeared in Duluth News Tribune,
Centre Daily Times, Monterey County Herald, San Jose Mercury News, Contra
Costa Times (california), Lexington Herald Leader (Kentucky):

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Knight Ridder Washington Bureau

July 24, 2003, Thursday

KR-ACC-NO: WA-BUSH-WARMING

LENGTH: 654 words

Page 1

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CEQ 005159

HEADLINE: U.S. to Study Science behind Global Warming Instead of Deciding How to Fix It

BYLINE: By Seth Borenstein

BODY:

WASHINGTON -- The Bush administration plans to spend at least two more years and another \$ 103 million studying what it calls the "uncertainty" of the science behind global warming instead of deciding how to fix it.

Scientists and environmentalists say the U.S. Climate Change Science Program, which will be released Thursday, focuses too much on scientific questions that have already been answered and not enough on action. Knight Ridder obtained parts of the plan Wednesday

The science plan is the Bush administration's next move on the thorny issue of global warming. Soon after taking office, President Bush withdrew from a 1997 international treaty to reduce emissions of so-called "greenhouse gases" -- which contribute to global warming -- and reneged on a campaign promise to regulate carbon dioxide emissions from coal-fired power plants. The president said restricting emissions of such fossil fuels to slow global warming would cost too much, given how uncertain he believes the issue is.

Summaries of the report use the word "uncertainty" 15 times and the phrase "fossil fuels" only once.

But uncertainty is more in the eyes of politicians than of scientists.

While scientists still quibble about how bad the problem will become, an overwhelming majority of climate scientists say global warming is man-made and is caused primarily by burning fossil fuels. A team of top international scientists predicts that world temperatures will increase somewhere between 2.5 to 10 degrees by the year 2100.

Spending so much time looking at the so-called uncertainty "is a little bit like somebody sending a letter to the fire department trying to find out their capabilities when there is already smoke coursing through the house," said Michael MacCracken, an atmospheric scientist. He was the federal government's top scientist in charge of studying the impact of global warming from 1993 to 2001.

The prestigious National Research Council, which does scientific and engineering studies for the federal government, said in February that an early version of the Bush strategy took good first steps, but "lacks most of the basic elements of a strategic plan" that would help lead to action. Officials at the council did commend the Bush administration for seeking scientific review.

Thursday's plan calls for more research in five key areas:

- Understanding today's climate and how the climate has changed in the past.
- Figuring out more precisely what causes global warming.
- Reducing the wide range of estimates on how hot the atmosphere will get.
- Understanding how humans and the environment could adapt to global warming.
- Deciding on "the limits" and risks of what can and can't be done about

it.

Commerce Secretary Donald Evans, in a prepared statement, said: "The Bush administration has brought a total government spending on climate-change related programs to \$ 4.5 billion. The critical investment announced today will accelerate select high-priority research projects and climate observations that will help us fill critical knowledge gaps."

According to Dan Lashof, science director for the Natural Resources Defense Council, a Washington environmental group, the problem isn't uncertainty, but Bush's unwillingness to listen to scientists' pleadings that global warming is a serious problem that must be addressed now.

"The administration is trying to call attention to its research plan to distract attention from its lack of an action plan to actually reduce global-warming pollution," Lashof said. "There is a lot of reiteration of questions that have been asked and answered for a number of years."

But Bill Kovacs, the U.S. Chamber of Commerce's vice president for environment and energy, said: "Uncertainty is what the problem is, and before you decide you're going to wreck an economy you need to decide the uncertainties."

Other versions of the story appeared in:

The Atlanta Journal and Constitution

July 24, 2003 Thursday Home Edition

SECTION: News; Pg. 4B

LENGTH: 310 words

HEADLINE: Warming report expected to call for more research

BYLINE: JEFF NESMITH

SOURCE: Cox Washington Bureau

BODY:

Washington --- The Bush administration will release its plan for addressing global warming today, calling for more study despite widespread scientific belief that climate change is linked to burning fossil fuels.

A consortium of 13 federal agencies developed the strategy, which is to be released by Energy Secretary Spencer Abraham, Commerce Secretary Donald Evans and others. A summary, obtained Wednesday, says the plan will "support scientific discovery and excellence."

William O'Keefe of the George Marshall Institute, a group that questions the need for immediate action, said the report "could be a very valuable guide for research and planning."

"The fact of the matter is we simply do not know how the climate system operates," he said. "No one doubts that human activities are affecting the climate. The big debate is how much."

Many scientists and environmentalists say the administration should act now.

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Spending so much time looking at the so-called uncertainty "is a little bit like somebody sending a letter to the fire department trying to find out their capabilities when there is already smoke coursing through the house," said Michael MacCracken, the government scientist in charge of studying global warming from 1993 to 2001.

"The bottom line is the administration doesn't have a policy to reduce the pollution that's causing global warming, so they're trying to get people to focus on their research effort," said scientist Dan Lashoff of the Natural Resources Defense Council.

"I think we should learn as much as we can about global warming, but we already know enough to know [that it is] time to start fixing the problem."

He noted the Senate is set to debate global warming next week when a bill to limit greenhouse gases is considered.

Knight Ridder Newspapers contributed material for this article.

The Washington Post

July 24, 2003, Thursday, Final Edition

SECTION: A SECTION; Pg. A06

LENGTH: 583 words

HEADLINE: Taking On Global Climate Change; Planned Study Is Decried as Stalling

BYLINE: Guy Gugliotta, Washington Post Staff Writer

BODY:

The Bush administration will announce today final details of a 10-year plan to study global climate change to determine whether greenhouse gases and other human-generated pollutants have contributed to an unnatural warming of Earth's atmosphere.

"We want to take a very careful acknowledgement of everything we know and don't know and try to drive the science forward," Assistant Commerce Secretary James R. Mahoney, director of the administration's U.S. Climate Change Science Program, said yesterday. "And we want to do it with as much transparency as possible, because this is a highly controversial area."

Environmental groups criticized the plan as a deliberate attempt to stall action on global warming by revisiting scientific questions that were long ago "asked and answered," said Daniel A. Lashof, science director for the Climate Center of the Natural Resources Defense Council.

Philip E. Clapp, president of the National Environmental Trust, said, "Most climate scientists around the world will see this as fiddling while Rome burns. More research is always welcome, but the goal here is just to delay doing anything about the problem."

The plan is contained in a 330-page report to be released today by Commerce Secretary Donald L. Evans and Energy Secretary Spencer Abraham. An executive summary and other amplifying documents were made public yesterday.

The new initiatives marked the latest effort by President Bush to take the high ground in the climate change debate. Environmentalists roundly

criticized him less than three months after taking office in 2001, when he dismissed the Kyoto agreement on global warming, saying it exempted developing countries and would harm the U.S. economy.

Bush's critics say the preponderance of scientific opinion holds that emissions of carbon dioxide and other heat-trapping industrial and tailpipe gases are responsible for a trend that has the potential to alter global climate in profound and perhaps catastrophic ways.

"The political piece with this latest effort is to make people feel better about the science," Lashof said. "But the administration will try to suppress information that its friends in the coal and oil industry don't like."

Administration supporters, however, say that although global warming may be a reality, the reasons for it remain unproven: "A lot of what people say about this is professional judgment and hypothesis," said William O'Keefe, president of the George C. Marshall Institute. "We just don't have the empirical data."

The research plan is intended to fix that, Mahoney said. The Climate Change Science Program brings together expertise from 13 federal agencies that are spending \$ 4.5 billion per year on programs that touch on climate change, he said, and the plan will reprogram \$ 103 million to deploy new satellite-based global observation technologies.

The plan outlines five "overarching scientific goals." They include improving knowledge of Earth's climate and "reducing uncertainty in projections of how the Earth's climate and related systems may change in the future." And although the plan is designed for 10 years, it also outlines 21 priorities to be completed by 2007, focusing on measuring emissions and making predictions based on the estimates.

"We don't recommend decisions," Mahoney said. "We're completely neutral about that, but we want to have as much useful information out there as possible when the bell rings and somebody wants to use it."

U.S. Newswire

July 24, 2003 Thursday 10:15 AM

SECTION: National Desk

LENGTH: 496 words

HEADLINE: WWF: US Research Plan Another Tactic to Delay Action on Global Warming;
Administration Attempts to Distract Nation from Environmental Problem

DATELINE: WASHINGTON, July 24

BODY:

The ten year research proposal for the US Climate Change Science Program announced today by the Bush Administration appears to be another attempt to focus attention on scientific uncertainties instead of taking action on the basis of science that already exists, according to World Wildlife Fund.

"If we continue to delay action while the Administration reinvents climate science we will miss the window of opportunity to reduce future impacts on communities and wildlife," said Katherine Silverthorne, director of WWF's US Climate Change Program.

"It is important to continue to build our knowledge of climate science, but the existing body of scientific literature on climate change makes clear that we must take steps to reduce emissions of heat-trapping emissions simultaneously while broadening our understanding," said Silverthorne. "Existing reports by top experts--the Third Assessment Report of the Intergovernmental Panel on Climate Change, a White House commissioned report by the National Research Council, and a 2002 report by the US Department of State--project an array of potential harm if action is not taken to reduce emissions of the heat-trapping gases that cause climate change."

In its review of an earlier version of the proposal, the National Academies highlighted that the proposal itself recognized that "uncertainty is inherent in science and decision making and therefore not in itself a basis for inaction," discounting the argument for delaying action based on scientific uncertainty.

"The Administration's irresponsible approach to global warming is putting us all at risk," said Silverthorne. "The planet has been diagnosed with a life-threatening disease and rather than working on a cure, the Administration is looking around for a second opinion it likes."

This proposal comes close on the heels of the release of an US Environmental Protection Agency report where Administration officials censored references to well accepted climate science, as reported by the New York Times.

U.S. Newswire

July 24, 2003 Thursday 12:18 PM

SECTION: National Desk

LENGTH: 402 words

HEADLINE: NCPA: Good News, Bad News Associated with Climate Report;
Emphasis on Uncertainty Good, But Still Relies Heavily on Unreliable Models

DATELINE: WASHINGTON, July 24

BODY:

The Bush Administration released its Climate Change Science Program's (CCSP) strategic plan today to a flurry of criticism from environmental activists that the administration has turned a blind eye to the "universally accepted" occurrence of global warming. Yet, according to scholars with the National Center for Policy Analysis (NCPA), the report was right to point out that there are vast uncertainties at the core of climate science. Unfortunately, the report did not go far enough.

The CCSP report acknowledges the seriousness of a changing climate, whether manmade or natural, and supports intensive research efforts to help us understand the climate better, and help us understand how we might respond to changes regardless of origin. It's important that the report acknowledges we know far too little about climate change to use it as the basis for any policy decisions.

"These uncertainties have to be worked out before we'll know if any given action -- like reducing greenhouse gases -- will do any good, or provide any benefit to present or future generations," said NCPA adjunct scholar and Fraser Institute chief scientist Kenneth Green.

"Acknowledging the uncertainty is a good first step, even if it does open the administration up to hyped attacks," said NCPA Adjunct Scholar Chris Horner, also a fellow with the Competitive Enterprise Institute. "Unfortunately like its critics, the report relies too heavily on climate models that recent government-confirmed tests proved could not be validated. These models have proved to be less accurate than a table of random numbers."

"The Administration was right to move away from the Kyoto Protocol, and instead insist on further research," concluded NCPA senior fellow H. Sterling Burnett. "Now its time for them to move away from the unreliable models from which Kyoto was based."

United Press International

July 24, 2003 Thursday 14:28 PM Eastern Time

LENGTH: 675 words

HEADLINE: Analysis: Climate goals OK but not funded

BYLINE: By DAN WHIPPLE

DATELINE: BOULDER, Colo., July 24 (UPI)

BODY:

There are no non-political reports about climate change, and no one will ever be satisfied, but the Bush administration's new "Strategic Plan for the Climate Change Science Program" is a serious attempt to advance the scientific basis for policy decisions, despite a lack of important specifics, according to experts on both sides of the debate.

The report outlines proposed scientific goals in five areas of climate research:

--Improving knowledge and understanding of the Earth's past and present climate and environment, including its natural variability;

--improving quantification of the forces bringing about changes in the Earth's climate;

--reducing uncertainty in projections of how the Earth's climate and related systems may change in the future;

--understanding the sensitivity and adaptability of different natural and managed ecosystems and human systems to climate and related global changes, and

--identifying the limits of evolving knowledge to manage risks related to climate variability.

Bill O'Keefe, president of the George C. Marshall Institute in Washington, D.C., who participated in one of the workshops convened in preparing the report, told United Press International the program will fill important gaps in information.

"Virtually all of the statements about climate change are based on hypotheses," he said. "There is a tremendous lack of information and data. This calls for a focus on research where research would help us understand how the climate system works." As this process moves forward, O'Keefe explained, it would create a scientific basis on which to make decisions, instead of speculation.

"This is a very broad and difficult topic, and I think the authors in the agencies did a good job, considering the difficulty of the task, the breadth of the topics and the relatively short amount of time in which they put it together," Rick Anthes, president of the University Center for Atmospheric Research, the parent of the National Center for Atmospheric Research in Boulder, told UPI.

"Much of it is very general and few specific action items are proposed," he added.

"Although the report sets out an ambitious plan for scientific research, the most glaring omission is no discussion of funding specifics and no estimate of cost," Anthes added, saying the report mentions only that the program will be implemented by six different appropriation bills within the context of the federal budget cycle.

"How is this actually going to be implemented?" Anthes asked. "Are there going to be new resources? If it's just a shuffling around of existing resources, not a lot will come of this. We need resources in the observing system and in the modeling area. If these resources aren't forthcoming, we will continue to make progress at a very slow rate.

Anthes called the problem "enormously important," and said, "If we're spending a billion a day on Iraq, which is also important, then we ought to spend a few hundred million a year on taking the pulse of the Earth."

One thing the report does seem to indicate is the climate change issue appears to be forcing its way to the policy forefront, despite the administration's lack of enthusiasm for the subject.

"Climate and climate variability play important roles in shaping the environment, natural resources, infrastructure, economy, and other aspects of life in all countries of the world," the report states. "Potential human-induced changes in climate and related environmental systems, and the options proposed to adapt to or mitigate these changes, may also have substantial environmental, economic, and societal consequences."

Anthes said he is "impressed that a document signed by officials at the highest levels of the administration would quote the June 2001 report that says very directly that greenhouse gases are accumulating, and that temperatures are in fact rising, most likely due to human activities."

"The new climate plan represents "an open airing of views," he said, "not sweeping global warming under the rug."

The Bulletin's Frontrunner

July 24, 2003 Thursday

SECTION: Washington News

LENGTH: 108 words

HEADLINE: White House To Announce Revised 10-Year Global Warming Research Plan.

BODY:

USA Today/AP (7/24) reports, "The White House on Thursday will issue a revised 10-year global warming research plan that sets five goals, chief among them identifying 'natural variability' in climate change, an effort that environmentalists say diverts the focus away from man-made

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pollution." The new plan "and funding initiative are being presented by Commerce Secretary Don Evans and Energy Secretary Spencer Abraham." An earlier version "was roundly criticized by a panel of top climate experts at the National Academy of Sciences, who said it didn't set hard priorities and lacked a clear, guiding vision and a specific timetable of goals."

Dana M. Perino

07/24/2003 07:55:28 AM

Record Type: Record

To: Joshua J. Chinsky/CEQ/EOP@EOP

CC:

Subject: AP: White House to Unveil Global Warming Plan (NYT, USATtook the AP story)

Josh -- could you please read the following article and then do a lexis search to see where this story may have run? curious to know who all picked up the ap story, who else wrote (i believe there'll be stories in the post, christian science monitor -- after noon today, reuters, greenwire, etc). if you could put all of the text into one email for us, that would be great. deadline would be end of day today. let me know if you'll be able to do it -- if not, no problem!

----- Forwarded by Dana M. Perino/CEQ/EOP on 07/24/2003
07:53 AM -----

Dana M. Perino

07/24/2003 07:52:35 AM

Record Type: Record

To: See the distribution list at the bottom of this message

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Subject: AP: White House to Unveil Global Warming Plan (NYT, USATtook the AP story)

sorry -- here's the article:

White House wants more research on Mother Nature's role in global warming
WASHINGTON (AP) --* The White House on Thursday will issue a revised 10-year
Page 9

CEQ 005167

global warming research plan that sets five goals, chief among them identifying "natural variability" in climate change, an effort that environmentalists say diverts the focus away from man-made pollution. The second goal listed by the Bush administration is to find better ways of measuring climate effects from burning fossil fuels, industrial production of warming gases and changes in land use. The 364-page plan emphasizes the difficulties but also the importance of reaching that goal. "These changes have several important climate effects, some of which can be quantified only poorly at present," say summaries obtained by The Associated Press. Managing the potential human contributions to global warming is described as "a capstone issue for our generation and those to follow."

Other goals are to reduce uncertainty in climate forecasting; to better understand how changes in climate affect human, wildlife and plant communities; and to find more exact ways of calculating the risks of global warming.

The administration also will ask Congress for a new \$103 million, two-year initiative to speed up "high priority" research on carbon pollution, aerosols and oceans and determine the best ways to compile and disseminate information about them, Assistant Commerce Secretary James Mahoney told the AP. He said that effort would be included in President Bush's budget proposals for 2005 and 2006 and would draw some of its funds from the existing \$1.75 billion Climate Change Science Program.

The new plan and funding initiative are being presented by Commerce Secretary Don Evans and Energy Secretary Spencer Abraham.

An earlier version was roundly criticized by a panel of top climate experts at the National Academy of Sciences, who said it didn't set hard priorities and lacked a clear, guiding vision and a specific timetable of goals.

"We've tried to take all of the academy's recommendations into account," Mahoney said. "The greatest focus is on what we can deliver in the shortest period."

He said more than 250 people worked on the plan, which envisions no fewer than 21 separate reports on varying aspects of climate change being produced over the next four years.

Carbon dioxide from burning oil and coal is blamed by many scientists for contributing to a "greenhouse" or warming effect on global climates. The Bush administration is the first to comply with Congress' 1990 mandate that a 10-year climate change research plan be created. Lawmakers also said such a plan should be updated every three years.

The new plan revises a draft released late last year which focused on making better economic projections of possible climate policy changes and tighter coordination of more than a dozen federal agencies' efforts. Lester Brown, founder of the Earth Policy Institute, and Philip Clapp, president of National Environmental Trust, criticized the administration for focusing on natural causes of global warming and reopening scientific issues already adequately addressed by the academy and the United Nations' scientific panel.

"It seems to me that it's an effort to postpone doing anything meaningful on the climate issue," said Brown, who called for more research on climate warming effects on crop production and water shortages.

Clapp predicted that "most climate scientists around the world will see this as fiddling while Rome burns. ... This would have been a great research program if it had been announced by the first President Bush 10 years ago."

Annie Petsonk, an Environmental Defense lawyer who helped craft the first Bush's policy while working in his administration's Justice Department, said there is enough scientific certainty to begin taking action now to reduce warming.

"Where the administration has thought to take any action at all has been to delete climate references from reports and to try to repudiate the science that says global warming is happening now," she said.

Bush and his advisers have adopted the stance that reducing emissions

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through costly near-term measures is unjustified, and that scientific forecasting of climate change is too imprecise to agree to long-term, international, mandatory cuts in greenhouse gas emissions. Mahoney said the administration has been careful to distinguish between science and policy.

"We can't move the science faster than it goes," he said. "At any point in time, there can be debates about the policy, but our job is to structure our information to be the most helpful."

----- Forwarded by Dana M. Perino/CEQ/EOP on 07/24/2003
07:51 AM -----

Dana M. Perino

07/24/2003 07:49:03 AM

Record Type: Record

To: See the distribution list at the bottom of this message

CC:

Subject: AP: White House to Unveil Global Warming Plan (NYT took the AP story)

July 24, 2003

White House to Unveil Global Warming Plan
By THE ASSOCIATED PRESS

Filed at 4:59 a.m. ET

WASHINGTON -- The chief goal in a White House plan to study global warming is learning more about natural causes of climate change, drawing criticism from environmentalists who say reducing industrial carbon emissions is the real problem.

The new 10-year plan and \$130 million proposal to speed up research in some high-priority areas was being released Thursday by Commerce Secretary Don Evans and Energy Secretary Spencer Abraham.

The first of the 364-page plan's five goals is to study the "natural variability" in climate change. The second is to find better ways of measuring climate effects from burning fossil fuels, industrial production of warming gases and changes in land use.

Other goals are to reduce uncertainty in climate forecasting; to better understand how changes in climate affect human, wildlife and plant communities; and to find more exact ways of calculating the risks of global warming, according to plan summaries obtained by The Associated Press.

But environmentalists said the administration was focusing too much on natural causes and reopening scientific issues already well studied. Philip Clapp, president of National Environmental Trust, predicted that "most climate scientists around the world will see this as fiddling while Rome burns. ... This would have been a great research program if it had been announced by the first President Bush 10 years ago."

"We can't move the science faster than it goes," Assistant Commerce Secretary James Mahoney, who oversees U.S. research on climate change, told the AP. "At any point in time, there can be debates about the policy, but our job is to structure our information to be the most helpful."

Mahoney said the administration also will ask Congress to approve a new \$103 million, two-year initiative to speed up research on carbon pollution, aerosols and oceans and determine the best ways to compile and disseminate information about them.

That effort will be included in President Bush's budget proposals for 2005 and 2006, Mahoney said, and would draw some of its funds from the existing \$1.75 billion Climate Change Science Program.

Congress in 1990 required that the nation create a 10-year climate change research plan, but no administration has complied until now. Such a plan also is supposed to be updated every three years.

The Bush administration released its first draft of a plan late last year, focusing on making better economic projections of possible climate policy changes and tighter coordination of more than a dozen federal agencies' efforts.

That draft was harshly criticized by a panel of top climate experts at the National Academy of Sciences, who said it didn't set hard priorities or provide a clear vision and specific timetable for meeting goals.

"We've tried to take all of the academy's recommendations into account," Mahoney said. "The greatest focus is on what we can deliver in the shortest period."

The plan calls for 21 reports over the next four years on a wide range of climate change aspects. Many scientists blame carbon dioxide from burning oil and coal for contributing to a "greenhouse" or warming effect on global climates.

Bush and his advisers have adopted the stance that reducing emissions through costly near-term measures is unjustified, and that scientific forecasting of climate change is too imprecise to agree to long-term, international, mandatory cuts in greenhouse gas emissions.

Mahoney said the administration has been careful to distinguish between science and policy.

Environmentalists said the administration was dragging its feet.

"It seems to me that it's an effort to postpone doing anything meaningful on the climate issue," Earth Policy Institute founder Lester Brown said, adding that the plan also seems to overlook an important link between global warming, grain production and water shortages.

Annie Petsonk, an Environmental Defense lawyer who helped craft the first President Bush's policy, said there is enough scientific certainty to begin taking action now to reduce warming.

"Where the administration has thought to take any action at all," she said, "has been to delete climate references from reports and to try to repudiate the science that says global warming is happening now."

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Chicago Climate Exchange Announces Start of Trading and Provider of Electronic Trading Platform Services.

(Chicago - July 23, 2003) Chicago Climate Exchange® (CCX®) reached another milestone in its development of the greenhouse gas emissions market as it set the opening date for trading. CCX also announced that IntercontinentalExchange™ (ICE™) has been contracted to provide, design and service CCX's electronic trading platform.

The auction of CCX emission allowances to its Members will be conducted, and the results announced, on Wednesday, October 1, 2003. CCX has established Tuesday, September 30, 2003 as the closing day for sealed bids. Continuous electronic trading of greenhouse gas emission allowances and offsets will begin on Friday, October 10, 2003.

"We are pleased to announce the dates for the first auction and the first trading day of CCX. We are also very excited to enter into this licensing agreement with ICE," said Dr. Richard L. Sandor, Chairman and CEO of CCX. "The ability to use ICE's trading platform in this private label arrangement allows CCX to benefit from ICE's proven leadership in electronic trading technology and will exemplify CCX's functionality, transparency and ability to provide a reliable marketplace for reducing and trading greenhouse gas emissions."

"ICE continues to take a leading role in serving the commodity markets with technology by converging innovative new products with unparalleled infrastructure," said Jeffrey C. Sprecher, Chairman and CEO of Intercontinental. "We are pleased to provide technology for CCX participants under this private label agreement that will facilitate the accessibility and transparency of the Exchange."

Atlanta-based IntercontinentalExchange™ is the leading electronic venue for the trading of over 600 energy and metals commodities. More than 5,000 users globally access the Internet-based ICE platform each trading day. Intercontinental also owns the International Petroleum Exchange of London (IPE), Europe's leading energy futures and options exchange. ICE recently licensed its electronic platform to the IPE for the trading of futures and options, in addition to the exchange's regular open-outcry trading sessions.

Chicago Climate Exchange®, Inc. (CCX®) is a self-regulatory exchange that administers the world's first multi-national and multi-sector marketplace for reducing and trading greenhouse gas (GHG) emissions. CCX represents the first voluntary commitment by a cross-section of North American corporations, municipalities and other institutions to establish a rules-based market for reducing greenhouse gas emissions. CCX enables members to receive credit for reductions, and to buy and sell credits to determine the most cost-effective means of achieving emission reductions.

###

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ICE to provide platform for Chicago climate market

Reuters, 07.24.03, 11:21 AM ET

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NEW YORK (Reuters) - The Chicago Climate Exchange (CCX) moved closer to its goal of making greenhouse gases tradable commodities this fall by hiring IntercontinentalExchange (ICE) to provide its trading platform, CCX said on Thursday.

CCX, the first exchange of its kind in the United States, aims to cut its member's emissions of greenhouse gases such as carbon dioxide by four percent by 2006. Scientists believe greenhouse gases, released by burning fossil fuels, cause climate change by trapping the sun's heat in the atmosphere.

CCX said it will begin continuous electronic trading of greenhouse gas emission allowances and offsets on Friday October 10, 2003.

The news came on the same day the Bush administration was set to release a new report on global warming. The Bush administration plans to delay action on global warming in favor of more study, according to an excerpt of a report circulated by U.S. environmental groups.

Atlanta-based ICE, which owns

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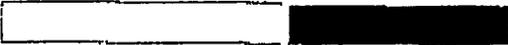
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Europe's energy trading market, the International Petroleum Exchange, is an electronic venue for trading 600 energy and metals commodities.



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"The ability to use ICE's trading platform in this private label arrangement allows CCX to benefit from ICE's proven leadership in electronic trading technology," said CCX Chairman and CEO Richard L. Sandor in a statement.

CCX currently has 14 members, ranging from the City of Chicago to Ohio-based American Electric Power (nyse: **AEP** - news - people), the largest carbon dioxide emitter in the United States. CCX officials are hopeful they will attract more members and extend the program beyond 2006.

Most industrial nations, with the exception of the United States -- the world's largest polluter -- have ratified the Kyoto Protocol, penned in 1997. Kyoto requires signatories to reduce gas emissions below 1990 levels by

The plan allows companies that cut emissions more than they initially pledged to firms unable to meet required reductions. Companies trading on CCX also can ear emission reductions programs, such as reforestation projects.

Currently, U.S. companies are not required to cap their greenhouse gas emissions Denmark, Japan and the European Union have already boosted emissions trading companies that curb emissions of greenhouse gases try to cash in. The European plan to cap a trade 45 percent of its greenhouse emissions which is targeted to be

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CREATION DATE/TIME:30-JUL-2003 07:45:14.00

SUBJECT:: Re: FYI #101: New Climate Change Strategic Plan

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])

READ:UNKNOWN

TEXT:

FYI

The American Institute of Physics Bulletin of Science Policy News
Number 101: July 29, 2003

Administration Releases Climate Change Research Strategic Plan

Commerce Secretary Don Evans, Energy Secretary Spencer Abraham and OSTP Director John Marburger were among a panel of senior Bush Administration officials who released the "Strategic Plan for the Climate Change Science Program" at a July 24 briefing. Presented as the Administration's outline for the conduct of research into climate change, and not as a policy document, the report sets forth a lengthy series of research goals over the next ten years to guide and coordinate the activities of thirteen federal departments and agencies. The document, a year in the making, is billed as "the first comprehensive update of a strategic plan for U.S. global change and climate change research since the original plan for the U.S. Global Change Research Program was adopted at the inception of the program in 1989."

The 360-page strategic plan is not quick reading. As befitting the complexity of the subject, the report's sixteen chapters describe in some detail the research needed to inform future policy decisions. The chapter on Atmospheric Composition, for example, outlines five questions such as, "what are the climate-relevant chemical, microphysical, and optical properties, and spatial and temporal distributions, of human-caused and naturally occurring aerosols?" For each of the chapter's five questions the report summarizes in four pages the State of Knowledge; Illustrative Research Questions; Research Needs; and Milestones, Products, and Payoffs.

Abraham characterized the new plan as "far reaching," and said that "the science program will find the answers" to many unresolved questions about climate change. He stressed DOE research programs that could ultimately reduce greenhouse gases, including those in hydrogen, clean coal, carbon sequestration, and fusion. Evans said that "the solution ultimately is technology," and said that "America is leading" the research on climate change. Evans said the amount of money the United States spends on climate change is more than Europe and Japan combined, and described an Administration-hosted international conference later this week on a proposed \$100 million plus global observation system to be developed over the next ten years. Evans concluded his remarks by characterizing criticism of the Administration's actions as "superficial."

Marburger repeated that the U.S. "is a leader in climate science," and characterized as "remote" and "difficult" climate science

issues. Energy Under Secretary Bob Card called the preparation of the plan, which involved external reviews and a public comment process, open and transparent. "We're going after as much reduction as we can," Card said of greenhouse gases.

NOAA Under Secretary James Mahoney, Director of the Climate Change Science Program, spoke at length. Citing the "massive" investment of time and funding in the program, Mahoney characterized the effort as a paradigm changing process, and said "these are very big bets." He outlined how the public provided input into the designing of the strategic plan, including a conference last December drawing 1,300 participants, and 270 sets of later written comments. Mahoney spoke of a "very special commitment to full transparency." A second review of the plan by the National Research Council will be issued in late 2003. The plan, he said, encompasses four approaches: advancing science, observation and data management, developing policy maker decision support resources and improved communication methods. Mahoney predicted that the strategic plan will result in a much better sense of the meaning of research findings.

In a question-and-answer session, Commerce Deputy Secretary Sam Bodman was asked what policy options might result from this work, such as Kyoto-type caps on emissions. "Anything is possible," Bodman said. "I would not put limits on anything that might come out of this if it is warranted." Policy might result from some of the research that is scheduled to be completed in as little as two years, he said. More than twenty synthesis and assessment reports will be prepared in the next four years. Bodman added that "this is a science document . . . an intellectually sound document." He insisted that the "politics" of climate change was not a major concern.

The 360-page Strategic Plan, a 34-page synopsis, and a four-page Executive Summary can be viewed at <http://www.climate-science.gov>

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EARTH OBSERVATION SUMMIT

Loy Henderson Room
U.S. Department of State
2201 C Street, NW, Washington, DC

31 July 2003

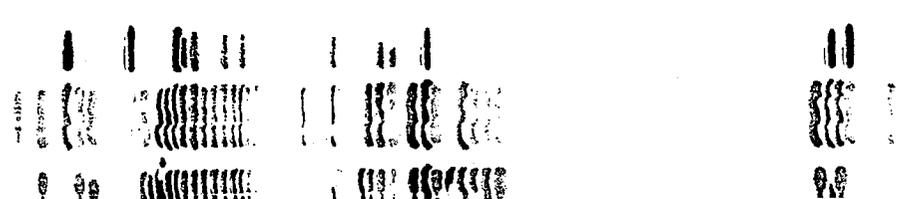
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Program of Confirmed Speakers

- 8:00 Registration (*Refreshments available in the Delegates Lounge*)
- 8:45 Photograph of Heads of National Delegations
- 8:55 Call to Order
Conrad C. Lautenbacher, Jr., Administrator, National Oceanic and Atmospheric Administration
- 9:00 Opening
Colin L. Powell, Secretary of State
Donald L. Evans, Secretary of Commerce
Spencer Abraham, Secretary of Energy
- 9:30 Welcome Remarks
John H. Marburger, III, Science Advisor to the President
- 9:40 Policy Context: Environmental and Economic Security
James Connaughton, Chairman, White House Council on Environmental Quality
- 9:50 Developing Country Role
Henri Djombo, Minister of Forest Economy and Environment, Republic of the Congo (Invited)
- 10:00 Presentation of the Earth Observation Summit Declaration
Donald L. Evans, Secretary of Commerce
- 10:05 Break [*Press Briefing*]

give to
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10:35 National Perspectives on an Integrated Earth Observation System
During this segment of the program, each country representative will have the option to provide a five-minute overview of interest and support for an integrated Earth observation system.

| | |
|------------------------------|-----------------------|
| Argentina | Japan |
| Australia | Kazakhstan |
| Brazil | Mexico |
| Cameroon | Morocco |
| Canada | New Zealand |
| China | Netherlands |
| Columbia | Norway |
| Democratic Rep. of the Congo | Republic of Korea |
| Egypt | Republic of the Congo |
| European Commission | Russia |
| France | South Africa |
| Gabon | Spain |
| Germany | Sweden |
| India | Switzerland |
| Indonesia | Thailand |
| Israel | Ukraine |
| Italy | United Kingdom |

1:00 Luncheon Program (*Benjamin Franklin Room*)
Hosted by Paula J. Dobriansky, Under Secretary of State for Global Affairs

2:30 Vision: An Integrated Earth Observation System of the Future
Sean O'Keefe, Administrator, National Aeronautics and Space Administration

2:50 Interactive Panel: Critical Need—Maintain and Improve Services
This session will focus on maintaining and improving services through integrated observations. Discussion topics will include oceans and coasts, meteorology, food, agriculture, and forests.

Moderator: James R. Mahoney, Director, U.S. Climate Change Science Program

Panelists include:

Patricio Bernal, Executive Secretary, Intergovernmental Oceanographic Commission

Børge Brende, Chairman, Commission on Sustainable Development

David Harcharik, Deputy Director-General, Food & Agriculture Organization of the United Nations

Patrick Obasi, Secretary-General, World Meteorological Organization

3:40 Break

4:10 Interactive Panel: Critical Need—Fill Gaps

The focus of this second panel is to identify and respond to current gaps in observations. Discussion topics include public health, disaster management support, global carbon, climate, oceans and coasts.

Moderator: *Rita R. Colwell, Director, National Science Foundation*

Panelists include:

David Carson, Director, World Climate Research Programme

Walter Erdelen, Co-Chair, Integrated Global Observing Strategy Partnership

Will Steffen, Executive Director, International Geosphere-Biosphere Programme

José Achache, former Chairman, Committee on Earth Observation Satellites

5:00 Exchange of Data in a Full, Open, and Timely Manner

Gale A. Norton, Secretary of the Interior

5:10 Adoption of Earth Observation Summit Declaration

Spencer Abraham, Secretary of Energy

5:20 Closing Remarks

5:30 Adjourn

6:00 Evening Program and Reception (*Benjamin Franklin Room*)

Remarks

Reception Host: Paula J. Dobriansky, Under Secretary of State for Global Affairs

Jeffrey N. Shane, Under Secretary of Transportation for Policy

Joseph Jen, Under Secretary of Agriculture for Research, Education, and Economics

MEETING AGENDA

July 23, 2003

1. Update on rollout plan for the CCSP
2. Overview of the Earth Observation Summit (goals of the meeting, invitees, outline)
3. Communications outreach for the Earth Observation Summit
4. Action items for meeting attendees

UNITED STATES DEPARTMENT OF
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**U.S.-HOSTED SUMMIT BRINGS NATIONS TOGETHER
TO TAKE THE PULSE OF PLANET EARTH**

*add in G-8
lead*

More than 25 nations came together today to realize a common goal – to establish an international, comprehensive, integrated and sustained Earth observation system. The new system is aimed at providing critical scientific data needed to address important global economic, social and scientific challenges. With this improved knowledge, decision-makers around the world will be able to make more informed decisions regarding climate, the environment, and a host of other economic and social issues that are affected by Earth and climate systems.

The Earth Observation Summit, hosted by the United States at the U.S. Department of State, marks an important milestone in the development of a comprehensive Earth observing system. By bringing together ministerial-level representatives from developed and developing countries with an interest and significant role in observing systems as well as representatives from international organizations such as the World Bank and the World Meteorological Organization, the summit promises to raise awareness for the issue with international decision-makers and ensure a new level of cooperation and investment in Earth observing systems.

The program included participation from several U.S. Cabinet officials including, Secretary of State Colin Powell, Department of Commerce Secretary Don Evans and Secretary of Energy Spencer Abraham. Joining them, the President's Science Advisor, Dr. John Marburger, provided remarks, and the Chairman of the White House Council on Environmental Quality, James Connaughton, presented the policy context on environmental and economic security. During the afternoon program NASA Administrator Sean O'Keefe and

Interior Secretary Gale Norton offered perspectives on the U.S. vision for a comprehensive, integrated Earth observation system.

- more -

- 2 -

Today, the heads of national delegations participating in the summit adopted a declaration that calls for a commitment to developing an integrated Earth observation system, reaffirms the need for Earth systems data and information for sound decision-making; sets forth principles for long-term cooperation in meeting these goals and commits to improving Earth observation systems and scientific support in developing countries. The declaration also calls for establishing an intergovernmental working group to prepare a ten-year implementation plan for an integrated Earth observation system.

State Dept. will provide a comment referencing the international community participation.

The intergovernmental working group will hold its first planning meeting tomorrow. The United States will be represented in the working group by retired Navy Vice Adm. Conrad C. Lautenbacher, Ph.D., undersecretary of commerce for oceans and atmosphere and NOAA administrator, and his alternate, Dr. Charles Groat, director of the U.S. Geological Survey.

"The U.S. and our international partners have made significant strides in putting systems in place to monitor the Earth, but crucial data gaps remain," said Commerce Secretary Don Evans. "The complex systems of the world's oceans cover 70 percent of the planet and affect climate trends that impact every nation of the globe are sparsely monitored and poorly understood. The Earth Observation Summit creates an international coalition to address global issues and lays the groundwork for improved environmental decision-making and economic growth and prosperity."

Sec. Abraham quote:

With more than \$3 trillion of U.S. GDP affected by climate and weather, including the agriculture, energy, construction, travel and transportation industry sectors, there are powerful economic as well as environmental incentives for gaining a greater understanding of these phenomena. The United States has already made significant investments in space and "in situ" or surface-based observing systems, including our ability to monitor the ozone layer using spacecraft and aircraft and the TAO/Triton Array of buoys that have helped forecast the most recent El Niño six months in advance.

In addition, international organizations such as the WMO have played a leadership role in developing the global observing system of the World Weather Watch with over 10,000 surface stations around the globe. Other monitoring systems in development include Global Ocean Observing System (GOOS), Global Climate Observing System (GCOS), Global Atmosphere Watch and the Global Terrestrial Observing System (GTOS). These disparate systems provide critical data, but linking them and expanding them will add considerable power to

an already impressive data collection effort and a quantum leap in our ability to predict and manage Earth system cycles and processes.

- more -

- 3 -

The improved observations will offer better data for improved models. These models are expected to yield advancements in Earth science and observations for many applications including more accurate predictions of climate change, crop production, energy and water use, disease outbreaks and natural hazards. The Earth Observation Summit begins a new era for harnessing the world's scientific and technical knowledge to take the pulse of the planet and provide new products and services that will help protect our environment and improve the quality of our lives.

For more information on the Earth Observation Summit please visit:
<http://www.earthobservationsummit.gov>.

###

The Economics of Global Earth Observation

Current savings

- The annual economic return to the U.S. economy of NOAA's El Nino forecast system is between 13 and 26%. (The Office of Management and Budget specifies a minimum rate of return of 5.8 percent for federal projects.)
- Agricultural sector benefits from weather services are about 15 to 1 -- farmers get about \$15 of value out of every dollar spent forecasting the weather.
- The vast increase in warning lead-times not only decreases deaths and injuries, but substantial monetary savings as well. Improvements in all facets of observing and forecasting have on average made our five-day forecast of a hurricane's track as accurate as our three-day forecast was 15 years ago.
- A new financial industry - seasonal weather derivatives - has seen exchanges double from \$2 billion a year in 1998-2000 to \$4 billion in 2001. It is now at \$7 billion and as accuracy in forecasts increase, this industry will continue to grow.
- In the U.S. alone, the benefits of Earth observation are estimated to be \$265 to 300 million annually. Worldwide the benefits are at least \$450 to \$550 million per year. The El Nino forecast system is an international effort to observe and forecast an international event. The benefits from improved forecasting of El Nino affect large parts of the U.S. economy. For instance:

There was a \$1.1 billion decrease in storm losses in California in the 1997-1998 El Nino as compared to the 1982-1983 El Nino. Although portions of the difference are due to different storm intensities and durations during each El Nino, a significant portion of the savings came from heightened preparedness.

Benefits to U.S. agriculture by altering planting decisions have been estimated at \$265-300 million annually, throughout El Nino, normal and La Nina years. Benefits to Mexican agriculture range from \$10 to \$25 million per year.

Optimizing inventory storage costs could approach \$200 million a year.

By changing hatchery releases and harvest rates, even a small scale sector like the Northwest Coho salmon fishery has a benefit estimated between \$250,000 and \$1 million.

Potential savings

- The annual cost of electricity could decrease by at least \$1 billion if the accuracy of weather forecasts was improved by just one degree Fahrenheit.

- In the U.S., about 1/3 of our Nation's GDP is climate and weather sensitive. About \$3 trillion is at risk in agriculture, finance, insurance and real estate; retail and wholesale trade and manufacturing.
- Better ocean observations can reduce the overall cost of oil pollution incidents by improved deployment of oil-spill clean-up equipment. Reliable oil-spill trajectory models depend on sea current and weather observations. Just in the Gulf of Maine, a one percent reduction in oil spill volume saves \$750K a year.
- In the commercial aviation community, weather is responsible for approximately 2/3 of air carrier delays at a cost of \$4 billion annually -- \$1.7 billion of which is avoidable with better observations and forecasts.
- Improved data from more complete observations on volcanic ash plumes will provide more accurate and timely warnings of the presence of these hazards to aviation. Airlines will be able to avoid the serious damage these plumes can cause to aircraft engines, and avoid any chance for serious accidents.
- If we can narrow our window of uncertainty through more relevant data and through the integration of multiple data sources, we will enable more informed economic decisions on many fronts -- emergency response management, for example. It is cheaper to evacuate five square miles than 25 square miles.
- With more observations, and more accurate forecasts, ships at sea will be able to make the changes in their routes to take advantage of favorable weather and avoid hazardous weather sooner, thus saving time and money.
- In pure economic terms, studies show that national institutions providing weather, climate, and water services to their citizens contribute an estimated \$20-\$40 billion dollars each year to their national economies.
- Knowing the water depths to a higher level of accuracy will allow ships to carry more cargo, producing more profit, and allowing the supply pipeline to continue flowing safely. We receive 95% of our goods by ship, and any information that keeps this supply going is vital. When a marine accident occurs, better forecasts lead to quicker rescues and salvage of the ships.
- Twenty-five percent of the Earth's biological productivity and an estimated 80-90% of the global commercial fish catch is concentrated in the coastal zones - where our populations are rising. In the U.S., 71 % of our recent disasters were coastal storms. As the global population doubles in the next 10 years, people and economies will be at increasing risk.
- Using very modest assumptions about costs, benefits, time horizons, discount rates, etc., the net present value of a program to modernize NOAA's weather service, similar to the effort undertaken in the 1980s and 90s, would provide about a 10 % annual rate of return on the investment.

**Earth Observation Summit
July 31, 2003
Fact Sheet**

www.earthobservationsummit.gov

- This unprecedented Earth observation Summit is being held to generate strong, top-level international support to link thousands of individual technological assets as one comprehensive global Earth observation system. The purpose of the system is to much more effectively address critical economic and societal concerns.
- Around the globe, individual systems have already demonstrated their value – in estimating crop yields, monitoring water and air quality, improving airline safety, and forecasting El Nino six months in advance.
- But gaps or “blind spots” in understanding Earth and its complex systems severely limit our knowledge of how to address many concerns, such as drought, disease outbreaks, stronger agricultural production, and energy and transportation challenges. Relevant tools are required to address the scientific uncertainties.
- The challenge is international. Earth’s systems respect no borders. For example, El Nino and the storms and droughts it generates are part of a climate system that affects every corner of the world.
- Twenty-seven countries and 20 international organizations are participating in the one-day Summit, which is taking place at the Ministerial level. Ministers are invited to adopt a Summit Declaration, which recognizes the need to support development of an integrated Earth observation system for multiple uses.
- Department of Commerce Secretary Evans, Secretary of State Powell and Secretary of Energy Abraham are hosting the event. Dr. John Marburger, the President’s science advisor, and James Connaughton, chair of the White House Council on Environmental Quality, will speak.
- International representatives will include Secretary General Obasi, of the World Meteorological Organization.
- The one-day Summit will be immediately followed by a two-day working session in which representatives of participating countries will launch work on an international plan for an integrated system that will ultimately yield services and products that go far beyond what we have today. The first step will be development of a conceptual framework by spring 2004.

- There is demonstrated payoff in developing a comprehensive global system.

Farmers get about \$15 of value from every dollar spent on weather forecasting.

El Nino forecasts generate a 13-26% economic return to the U.S. economy. As two examples, a significant portion of the \$1.1 billion decrease in storm losses in California during the 1997-98 El Nino event as compared with the 1982-83 El Nino is attributed to heightened preparedness; and benefits to U.S. agriculture from altering planting decisions are estimated at \$265 - \$300 million. Benefits to Mexican agriculture range from \$10 - 25 million per year.

Internationally, weather, water and climate services provided by national institutions contribute about \$20-40 billion annually to their national economies.

In the U.S. alone, the benefits are estimated to be \$265 to \$300 million annually. Worldwide the benefits are estimated to be at least \$450 to \$550 million annually.

- The need is critical:

"It is estimated that as much as 40% of the \$10 trillion U.S. economy is affected by weather and climate annually." National Research Council of The National Academies [2003]

Population is expected to double in the next few decades, primarily in coastal areas. Improved, up-to-date environmental data is needed to plan for environmentally and economically sound growth and to develop more sustainable practices to protect fragile coastal ecosystems. Coastal crowding brings increased vulnerability to such natural hazards as flooding, hurricanes and tsunamis.

Governments and decision-makers around the globe now understand that large science questions are linked to pressing social and economic concerns, such as water and air quality, energy use and food shortages.

- For over four decades, Earth scientists and other experts around the world have worked to build different weather systems – both space and surface-based (*in situ*) - to observe and measure various aspects of the Earth. These systems have evolved to allow us today to forecast weather five days in advance, give a six-months' heads-up on El Nino, estimate crop yields, monitor water and air quality, and improve airline safety and operations, among many other benefits. Now nations are faced with larger questions about how the Earth functions and what the implications are for society, such as climate change. This calls for international collaboration in integrating technology now working around the globe.

- **Timeline of Key Bush Administration Initiatives**

June 2001

President Bush calls the international community to action on climate in a Rose Garden speech at the White House. This first-ever Summit is a major advance in his commitment to "provide resources to build climate observation systems in developing countries and encourage other developed nations to match our American commitment."

Since 1990, U.S. has invested \$20 billion in climate change science and technology, three times the investment of all the nations of the EU and Japan combined. U.S. now invests \$4.5 billion a year in climate research and technology.

The Administration committed more resources and established an integrated management structure led by Cabinet Secretaries of Commerce and Energy.

Implementing the Climate Change Research Initiative established a new management structure and committed new resources.

February 2002

President Bush announces \$25 million in funding for observing systems and capacity building in developing countries.

August 2002

At the World Summit on Sustainable Development in Johannesburg, South Africa, the U.S. took the lead in urging an integrated global observing system, underscoring the critical link between global observations which link space and *in situ* observations across land, sea and air and sustainable development. During the Summit, the 500th ARGO float was deployed. This event marked an international milestone in the creation of a global ocean observing system that provides information on weather and ocean phenomena critical to safety and the economy.

May 2003

U.S. promotes global observing at G-8 Summit, where G-8 Partners agree to Cooperative Action on Science and Technology for Sustainable Development.

July 2003 in Washington, DC

U.S. hosts groundbreaking Earth Observation Summit

100 M
accelerated
announcement →

EARTH BSERVATION SUMMIT

Earth Observation Summit Participating Countries

| | |
|------------------------------|-----------------------|
| Argentina | Japan |
| Australia | Kazakhstan |
| Brazil | Mexico |
| Cameroon | Morocco |
| Canada | New Zealand |
| China | Netherlands |
| Columbia | Norway |
| Democratic Rep. of the Congo | Republic of Korea |
| Egypt | Republic of the Congo |
| European Commission | Russia |
| France | South Africa |
| Gabon | Spain |
| Germany | Sweden |
| India | Switzerland |
| Indonesia | Thailand |
| Israel | Ukraine |
| Italy | United Kingdom |

Participating Organizations

Committee on Earth Observing Satellites (CEOS)
European Space Agency (ESA)
EUMETSAT
Global Climate Observing System (GCOS)
The Global Environment Facility
Intergovernmental Oceanographic Commission (IOC)
Integrated Global Observing Strategy Partnership (IGOS)
International Geosphere-Biosphere Program (IGBP)
International Strategy for Disaster Reduction (ISDR)
International Council for Science (ICSU)
International Group of Funding Agencies for Global Change Research
UN Educational, Scientific, and Cultural Organization
UN Framework Convention on Climate Change (UNFCCC)
UN Development Programme
UN Environment Programme
World Bank

7/23/2003

**Earth Observation Summit
Anticipated Press Q's and A's
(Internal Use)**

Is this an alternative to Kyoto?

This Summit is much broader and goes well beyond climate. The focused work on climate and Kyoto is on-going elsewhere... participants at the Earth Observation Summit are stepping up to look at the functioning systems of the Earth as a whole. Forming a more complete system of observations of planet Earth will help to meet the current knowledge gaps about climate. So, climate is an important element to this, but it is only one piece.

What is the urgency of building an Earth Observation System?

The health of every country's economy is directly tied to the health of the environment. And as in today's world our economies are linked, so too are the environments we live in. Severe storms, drought, oil spills, volcanic plumes do not pay any attention to political boundaries.

Our collective futures are inextricably linked to the natural environment we live in. If we are to flourish we must understand **our** Earth. To truly understand our Earth we must observe it.

How are we affected by the presence or absence of these networks?

We see everyday the benefits from these observations with weather forecasts as they are beamed into our living rooms. And we have seen these evolve from 3-day forecasts to week-long forecasts – and now 3-6 month El Nino forecasts.

The Earth's well-being is of major significance to America – and to every nation in every part of the world. But right now there are major gaps in our understanding of how our Earth works.

We must fill in these gaps to begin addressing critical societal and economic issues – predicting and monitoring disease outbreaks, genuinely understanding changing climate, getting the handle on drought, producing even more reliable and longer-term weather warnings, and strengthening models of flood prediction, energy use and transportation routing. The aim is to significantly heighten the quality of life for peoples everywhere. More worldwide observations are needed.

The U.S. and the world has invested a great deal over the last few decades – in satellite systems for forecasting weather and other natural events, in buoys, ships and other networks that have brought us to the point where we can now forecast El Nino 6 months in advance!

7/23/2003

We need to continue to develop the tools that can help guide us through the important socioeconomic choices that the U.S. and other nations must make over the coming decades.

Without good data we cannot answer these questions – and we cannot have good data and information without observations.

What kind of world-wide cooperation is the U.S. getting to carry this out?

We have worked diligently to promote international cooperation and support for building upon the present pieces of the global observation system. Right now, the system is a rather loose set of ocean buoys, space satellites, and other instruments on land, sea, and in the air that monitor the Earth and collect data.

A more comprehensive integrated observation and information management network is needed to improve our understanding of climate change and generate the forecasts that policy makers will need.

The recent G-8 Summit addressed the topic of Earth observations:

- At the 2003 G-8 Summit in Evian, France, the G-8 Action Plan on Science and Technology for Sustainable Development called for strengthening international cooperation on global observation and listed a number of specific activities.
- These activities include areas to which the Summit may directly contribute, including:
 - developing coordination of our respective global observation strategies for the next ten years;
 - identifying new observations to minimize data gaps;
 - building on existing work to produce reliable data products on atmosphere, land, fresh water, oceans and ecosystems;
 - improving the world-wide reporting and archiving of these data; filling observational gaps of coverage in existing systems;
 - favoring of interoperability with reciprocal data-sharing; and
 - development of an implementation plan to achieve these objectives.
-
- The U.S. committed \$600,000 dollars to help generate a new report on the adequacy of the current global climate observing system.
- Investing \$25 million in climate observation systems in developing countries, and have challenged other developed nations to match the U.S. commitment.

What technology is being used and shared among countries?

7/23/2003

The world's countries have the technology to wire the world.... but in most cases we've wired it separately. That is changing.

- Satellites for weather and other environmental phenomena ring the Earth and provide valuable information daily for public benefit.
- For example, a handful of countries have funded the joint deployment of nearly 825 ocean monitoring buoys worldwide. Called ARGO, these buoys regularly drop below the sea surface to take measurements and then send the data to satellites overhead. But to truly be effective and fill in data gaps, we must have 3,000 buoys on the water.

Overall, we must take data and fill in many of the gaps we have in ocean and upper atmosphere, as well as some of the surface stations and satellite coverage.

We have to get to the point where data is *verifiable*, it's *received consistently*, and it's *understood* by all who use it *for use in various Earth models, including climate models*.

Some of the technology still needs to be developed. For example, climate observations form the foundation for modeling, research, and informed decisions on climate. The science community has developed a set of requirements needed for these observations. For some – new techniques will have to be developed. For others – existing observing capability is fine.

And it is essential for us to build the information management systems needed to handle improved models and increases in data streams into the future – this will also require large investments in high-performance computing similar to what the Japanese have done for the Earth Simulator.

General Summit Info

What is the purpose of the Earth Observation Summit?

The purpose of the summit is to obtain high-level, international support for a system of integrated space-borne, airborne, and *in situ* observations, to help understand and address global environmental and economic concerns.

Who is invited to the Summit?

The United States is inviting Ministers from the G-8 and other countries that use observing systems or significant ground segments; and are interested in development of an international, coordinated, Earth observation system. Senior officials of relevant multilateral organizations, multilateral development banks, foundations, and international science organizations have also been invited.

When and where is the Summit being held?

7/23/2003

The summit will be held July 31, 2003, at the United States Department of State, Washington, DC.

What U.S. Government agencies are participating?

The Summit is an interagency effort with strong participation from the Departments of Commerce, State, Energy, Interior, Agriculture, Transportation, the National Aeronautics and Space Administration, the National Science Foundation, the Environmental Protection Agency, White House Council on Environmental Quality, and the White House Office of Science and Technology Policy.

How will the Summit and the work of the IAHWG relate to existing international structures and programs?

Engagement of existing international structures and programs is important to the process of developing a 10-Year Implementation Plan for an integrated Earth observation system. The Summit and IAHWG documents emphasize the significant progress in Earth observations, as constituted in existing international structures and programs; including, but not limited to: the Integrated Global Observing Strategy, the 3 Global Observing System organizations for climate, terrestrial, and ocean observations, WMO, Intergovernmental Oceanographic Commission, and related UN activities, the Committee on Earth Observation Satellites, and International Council for Scientific Unions.

How strongly will climate feature at the Earth Observation Summit and in the follow-on work of the intergovernmental ad hoc Group on Earth Observations?

The Summit and its follow-on work, the creation of a ten-year implementation plan, includes all aspects of Earth observations –atmosphere, oceans, land and ecosystems. The plan will also require connecting a range of platforms for observations, including land-based, airborne and space-borne systems, for the range of uses in climate, weather, natural hazards, living resources, and related needs of national and international priority. Earth observing systems for climate science are essential to this effort. The development of a plan builds on the substantial set of Earth observation systems that are currently contributing measurements for climate.

**Earth Observation Summit
Press Q's and A's**

What is the urgency of building an Earth Observation System?

The health of every country's economy is directly tied to the health of the environment. And as in today's world our economies are linked, so too are the environments we live in. Severe storms, drought, oil spills, volcanic plumes do not pay any attention to political boundaries.

Our collective futures are inextricably linked to the natural environment we live in. If we are to flourish we must understand our Earth. To truly understand our Earth we must observe it.

Why now?

- 1) For over 4 decades now, groups of Earth scientists and other experts around the world have worked to build different weather systems – both space and surface-based (in situ) - to observe and measure various aspects of the Earth.
- 2) These very systems have evolved to allow us today to forecast weather 5 days in advance, describe El Nino to the general public, estimate crop yields, monitor water and air quality, and improve airline safety and operations.
- 3) Now, nations are faced with larger questions about how the Earth functions and what the implications are for society, such as climate change.
- 4) Governments and decision-makers around the world now understand that these larger science questions are linked to other pressing social and economic needs of society.
- 5) The Summit is an unprecedented step to bring together nations interested in connecting the separate systems that exist today and developing a more comprehensive and globally coordinated Earth observing system.

How are we affected by the presence or absence of these networks?

We see everyday the benefits from these observations with weather forecasts as they are beamed into our living rooms. And we have seen these evolve from 3-day forecasts to week-long forecasts – and now 3-6 month El Nino forecasts.

Even with these advancements, there are major gaps in our understanding of how our Earth works.

We must fill in these gaps to begin addressing critical societal and economic issues – predicting and monitoring disease outbreaks, genuinely understanding changing climate, getting the handle on drought, producing even more reliable and longer-term weather warnings, and strengthening models of flood prediction, energy use and transportation

7/23/2003

routing. The aim is to significantly heighten the quality of life for peoples everywhere. More worldwide observations are needed.

The U.S. and the world has invested a great deal over the last few decades – in satellite systems for forecasting weather and other natural events, in buoys, ships and other networks that have brought us to the point where we can now forecast El Nino 6 months in advance!

We need to continue to develop the tools that can help guide us through the important socioeconomic choices that the U.S. and other nations must make over the coming decades.

Without good data we cannot answer these questions – and we cannot have good data and information without observations.

What kind of world-wide cooperation is the U.S. getting to carry this out?

We have worked diligently to promote international cooperation and support for building upon the present pieces of the global observation system. Right now, the system is a rather loose set of ocean buoys, space satellites, and other instruments on land, sea, and in the air that monitor the Earth and collect data.

A more comprehensive integrated observation and information management network is needed to improve our understanding of issues like climate change and generate the forecasts that policy makers will need.

The recent G-8 Summit addressed the topic of Earth observations:

- At the 2003 G-8 Summit in Evian, France, the G-8 Action Plan on Science and Technology for Sustainable Development called for strengthening international cooperation on global observation and listed a number of specific activities.
- These activities include areas to which the Summit may directly contribute, including:
 - developing coordination of our respective global observation strategies for the next ten years;
 - identifying new observations to minimize data gaps;
 - building on existing work to produce reliable data products on atmosphere, land, fresh water, oceans and ecosystems;
 - improving the world-wide reporting and archiving of these data; filling observational gaps of coverage in existing systems;
 - favoring of interoperability with reciprocal data-sharing; and
 - development of an implementation plan to achieve these objectives.
- The U.S. previously committed \$600,000 dollars to help generate a new report on the adequacy of the current global climate observing system.

7/23/2003

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**Earth Observation Summit
Talking Points
July 31, 2003**

- **The Earth's well-being is of major significance to America – and to every nation in every part of the world. But right now there are major gaps in our understanding of how our Earth works.**

- **To fill in these gaps, and to begin to address critical scientific uncertainties, we need to connect the thousands of technological assets now at work on land and in the sea and air – the aim is to link them as one integrated Earth observation system that can capture the Earth's dynamic forces all across our globe.**

- **The payoff can be enormous. Right now, experts estimate that the agricultural sector benefits from weather services at a cost ratio of about 15 to 1. Farmers get about \$15 of value from each dollar spent on weather forecasting. The annual economic return to the U.S. economy of NOAA's El Nino ocean observing and forecast system is between 13 and 26 percent. Just imagine the public safety and economic payoffs of knowing how severe next winter will be, or being able to predict where the next outbreak of West Nile virus will hit.**

- **The technology already exists. What's needed is the international political will to make one integrated global observation system a reality.**

- **That's why we are hosting this groundbreaking Earth Observation Summit, to usher in a new era of international cooperation in which the nations of the world work in partnership to integrate a system designed to bring the very best information home to all the peoples of the world – sound science that will drive sound economic and societal decisions.**

- **One integrated system will better predict and monitor disease outbreaks...speed the flow of goods... strengthen agricultural production...give us a true understanding of changing climate... yield even more reliable weather warnings to protect lives and property...and provide output that will be fed into models of flood prediction, energy use and transportation routing – all of which will contribute to a better quality of life and stronger global economies.**

- **More than 25 countries and nearly 20 international organizations are engaged in the Summit. Ministers are invited to adopt a Summit Declaration recognizing the need to support development of an integrated Earth observation system for multiple uses. An intergovernmental working group will develop an implementation plan over the following year.**

- **Many participating countries already have systems to observe and measure various aspects of Earth. These are the systems that enable us to estimate crop yields, monitor water and air quality, improve airline safety – and forecast El Nino six months in advance.**

- **Faced with larger science questions, such as climate change, governments and policy-makers around the world now have a clearer understanding that these larger questions are linked to other pressing social and economic needs.**

- **The Summit is an unprecedented step toward bringing together nations committed to linking piecemeal systems as a way to address these acute needs.**

- **Never has the need been more critical. \$3 trillion of the U.S. GDP is affected by climate and weather, including the agriculture, energy, construction, travel, and transportation sectors. Globally, weather, water and climate services contribute about \$20-\$40 billion yearly to national economies.**

- **On June 11, 2001, President Bush committed to providing resources to help build climate observation systems in developing countries, and to encourage other developed nations to match America's commitment. This first-ever Summit is a major step in advancing that commitment.**

Earth Observation Summit Constituent Briefing

7/28/03

HCHB Auditorium

John F. Amos, President, SkyTruth

James E. Anderson, Director, WeatherNet Business Services, AWS Convergence Technologies

Dr. Leo Andreoli, Northrop Grumman Space Technology (California)

Dr. Mary Atalo, Corporate Vice President, SAIC

Bill Baer, Space Imaging

Nina Bean, Director, Science & Information Technology Group, Decision Systems Technologies, Inc.

Kathleen Beres, Sr. Director, Space Systems Group, Orbital Sciences Corporation

Jessica Biamonte, Institute for Alternative Futures

Eugene Bierly, Senior Scientist, American Geophysical Union

Hilary Bingle, IUCN - The World Conservation Union

Jonathan Black, Senate Committee on Energy and Natural Resources

Mark Brender, Vice President, Space Imaging

Carl Butler, KeyLogic Systems, Inc.

Lee Hayes Byron, USCAN Coordinator, US Climate Action Network

Julie Campbell, The Campbell Marketing Group, Inc.

Valerie Cooper, Weather Risk Management Association

Thomas A. Cors, Policy Advisor, Energy, Environment and Transportation, Altarum

Marc Cotnoir, Consultant

Alessandro Damiani, Minister-Counselor-Head of Science, Technology & Education, European Commission Delegation

Larry Denton, Denton Associates for The Weather Channel

Gitane De Silva, Second Secretary, Environment and Fisheries, Embassy of Canada

Lamont Di Biasi, L. Di Biasi Associates

Dr. Sidney Draggan, Sr. Science & Science Policy Director, Office of the Assistant Administrator for Research & Development, U.S. EPA

Frank Eden, Eden Consulting (703) 273-8928

Lynn Elsey, Heldref (Weatherwise)

Gina Eosco, American Meteorological Society Policy Program

A. Christine Eppstein, Sr. Project Manager & Legislative Analyst, Environmental Council of the States

Simon Evans, NOAA Account Manager, ESRI, Inc.

Dr. Gene Fisher, American Meteorological Society Atmospheric Program

Paul Frascione, Information Manufacturing Corporation

Mayumi Fujita, Researcher, Jamstec (Japan Marine Science and Technology Center)

Seth Gabriel, Government Affairs, National Ocean Industries Association

Patricia Geets, Washington Representative, Jean-Michel Cousteau's Ocean Futures Society

Graham Gibbs, Canadian Space Agency

Jennifer Greenamoyer, External Affairs Director, Sea Grant Association

Dick Hallgren, American Meteorological Society

Erin C. Hatch, Manager, Government Relations, Ball Aerospace & Technologies Corp.

George Hechtman, Mitretek Systems

Michael Hewins, Chairman & CEO, AstroVision International

Shannon Heyck-Williams, Senate Committee on Environment & Public Works

Thomas J. Hickey, Raytheon Information Systems

Tim Hodges, Embassy of Canada

Eric Holdsworth, Director, Climate Programs, Edison Electric Institute

Dr. William Hooke, Atmospheric Policy, American Meteorological Society

John Hussey, Principal Director, NOAA Programs, The Aerospace Corporation

Tetsuro Isono, JAMSTEC (Japan Marine Science and Technology Center) Liaison to NOAA OGP

Dr. Herbert Jacobowitz, Short & Associates

Dr. Tony Janetos, Vice President, The H. John Heinz III Center for Science, Economics, and the Environment

Chris Jehn, Cray Research

Sergio Jellinek, Communications Advisor to the VP of Sustainable Development, The World Bank

Michael Johnson, Chairman of the Observations Coordination Group, Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology

Russel Jones, Global Climate Change Program, American Petroleum Institute

Thomas Jones, Deputy Director for External Affairs, Consortium for Oceanographic Research and Education

Drew Jorgensen, Environmental Literacy Council

Rhonda Kranz, Ecological Society of America

Carol Lane, Ball Aerospace

Vic Leonard, President & CEO, Resource21, LLC.

Dale Luddeke, Vice President, Resources and Environmental Services, Computer Sciences Corporation

Taha Macpherson, Second Secretary (Political) Embassy of New Zealand

Michael Mader, Raytheon

Dr. Erick Malaret, President, Applied Coherent Technology Corporation

Jon Malay, Lockheed Martin

Rori Marston, National Ocean Industries Association

Malinda Matson, Office of Pedro Tenorio, Representative to the U.S., Commonwealth of the Northern Mariana Islands

Robert H. McFadden, GHG Associates

Joanne McCoy, Manager, Washington Operations, Spectrum Astro, Inc.

Craig Meyers, Eddington, Peel and Associates

Teresa Mikelson, Environmental Literacy Council

Robert Moran, Director of Government Affairs, American Petroleum Institute

Duane Mueller, Climate Change Team, Office of Environment & Science Policy, U.S. Agency for International Development

Tom Neff, Mitretek Systems

Frederick Nordlund, Head, Washington DC Office, European Space Agency (488-4158)

Bob Olson, Institute for Alternative Futures

Ben Piper, Energy, Environment and Transportation, Altarum

Rafe Pomerance, Americans for Equitable Climate Solutions

Benjamin Preston, Sr. Research Fellow, Pew Center on Global Climate Change

Robert Randall, President, The RainForest ReGeneration Institute

Randy Rondol, Sr. Environmental Advisor, ExxonMobil Washington Office

Dr. David Rogers, Science Applications International Corporation

George C. Roman, Boeing

Pete Rose, Director of Government Affairs, Weather Risk Management Association

Dr. Izumi Sakamoto, Deputy Director, Washington Office, Jamstec (Japan Marine Science and Technology Center)

Terry Schaff, Director of Government Affairs, Woods Hole Oceanographic Institution

Stanley R. Schneider, Associate Director for Technology Transition, NPOESS Integrated Program Office

Dr. Joseph Senftle, BAE Systems

Steve Short, Short & Associates

Randy Showstack, Editor, Eos – The American Geophysical Union

Dawn Sienicki, Director of Washington DC Operations, DigitalGlobe

Lani Sinclair, Americans for Equitable Climate Solutions

Gary Sloan, Director, Maintenance & Operations, Raytheon Intelligence and Information Systems

Wade H.B. Smith, Mitretek

Barry Stamey, Mitretek Systems and the Marine Technology Society

Amanda Staudt, Board on Atmospheric Sciences & Climate, National Academies, National Research Council

Dr. Fred Stolle, Project Manager, Global Forest Watch for Southeast Asia, World Resources Institute

Doug Stone, Government Affairs, American Meteorological Society

William E. Stoney, Mitretek Systems

Terry Tarbell, RSIS

Hassan Virji, Deputy Director, International START (SysTem for Analysis, Research and Training) Secretariat

Friedrich Wacker, Embassy of Germany

Brian Wheeler, Director of External Affairs, Consortium for Oceanographic Research and Education

Megan Weiner, Department of Geography, University of Maryland

Joel Widder, Lewis-Burke Associates

Robert Winokur, Earth Satellite Corporation

Don Winter, Weather Consultant

Patrick Woods, Executive Vice President, Integral Systems, Inc.

Ann Yoders, National Council for Science and the Environment

Daniel A. Zimble, ESRI-International Relations/Technical Marketing

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Earth Observation Constituent Briefing
July 25, 2003
HCHB Auditorium

Agenda:

- Introduction/Opening Remarks and Presentation on EO Summit: VADM Conrad C. Lautenbacher, Jr., U.S. Navy (Ret.) Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator
- NASA Role in EO Summit Presentation and Video (7'): Dr. Ghassem R. Asrar, Associate Administrator for Earth Science, NASA
- U.S. Department of Energy Role in EO Summit Presentation: Dr. Ari Patrinos, Associate Director for Biological and Environmental Research, U.S. Department of Energy
- Q&A

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP [CEQ])

CREATION DATE/TIME:31-JUL-2003 16:32:35.00

SUBJECT:: From Science - Ltr to Editor Criticizing Editorial on Climate Change;
Article on CCSP Plan

TO:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@EOP [CEQ])

READ:UNKNOWN

TEXT:

----- Forwarded by Dana M. Perino/CEQ/EOP on 07/31/2003
04:31 PM -----

From: Kathryn M. Harrington on 07/31/2003 04:23:07 PM

Record Type: Record

To: All OSTP Users

CC: Dana M. Perino/CEQ/EOP@EOP, lcamooso@doc.gov @ inet

Subject: From Science - Ltr to Editor Criticizing Editorial on
Climate Change; Article on CCSP Plan

===== ATTACHMENT 1 =====

fax
Copies to:
Christine McDonald
(OMB)
Kevin Regland
(OMB)
✓ FAXED NOT

CEQ
255 PC

United States Environmental Protection Agency
Office of Congressional and Intergovernmental Relations
1200 Pennsylvania Ave., N.W.
Mail Code 1301A
Washington, D.C. 20460

TO: Phil Kooney (CEQ)
(202) 456-2710

From: Craig R. Freer
Phone: (202) 564-1376
Fax: (202) 501-1519

Message:

Jeffords Letter

Page 1 of 3 Pages

002176

CEQ 005213



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 28 2003

THE ADMINISTRATOR

The Honorable James M. Jeffords
Ranking Member
Committee on Environment & Public Works
United States Senate
Washington, DC 20510

Dear Senator Jeffords:

Thank you for your letter of June 19, 2003, to President Bush regarding EPA's *Draft Report on the Environment (Draft Report)*. I have been asked to respond on behalf of the President. I appreciate having this opportunity to set the record straight on the *Draft Report* and on the Administration's extensive work to improve our knowledge about climate change.

The *Draft Report* is the first national picture of the environment in the United States, highlighting the significant progress that has been made to protect the air, water and land resources, and the importance of scientifically-sound indicators. One of its main goals is to provide the American public the knowledge and the tools to assess the state of their environment. The *Draft Report* is the result of the dedicated efforts of many contributors and, though we are pleased with the result, we recognized from the outset that the *Draft Report* is only the first step in a long process. Considering that this report is the first time the Agency has undertaken and completed such a comprehensive look at the nation's environment, it is regrettable that the long hours of work by so many people were overshadowed by complaints about what was not in the report.

With regard to the concern that the Administration is reluctant to address the issue of climate change, I would like to take this opportunity to inform you of the release last month of the Administration's 327-page *Strategic Plan for the Climate Change Science Program* by Secretaries Evans and Abraham, and the White House Office of Science and Technology Director, John Marburger (copy enclosed). This report was being worked on in the same time frame as the *Draft Report* and was released the month after the *Draft Report* was released. The *Strategic Plan* is an ambitious effort that sets a vision, goals, priorities and products expected from the coordinated efforts of thirteen Federal agencies over the next decade. It also reflects an unprecedented outreach effort to interested parties, including some 1,200 scientists and stakeholders as well as representatives of more than 35 countries. The Bush Administration is supporting these efforts, and others, through investments in climate-related programs totaling over \$4.5 billion annually.

Internet Address (URL) = <http://www.epa.gov>

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CEQ 005214

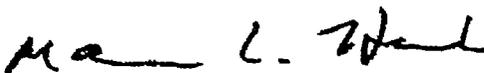
2

In addition, at the Earth Observation Summit held in Washington on July 31, the Administration announced that it would dedicate \$103 million for a two-year Federal initiative to accelerate the deployment of new global observation technologies to study oceans, atmospheric aerosols and carbon. I joined Secretary Powell at that Summit, along with the Secretaries for Energy, Commerce, and Interior. In just the past month, there has been an extraordinary amount of work, Cabinet-level attention, and financial resources pledged in support of the climate change issue by the Bush Administration. All this should be viewed as part of an integrated, serious effort to address the long-term challenge of global climate change.

It is therefore unfortunate that the *Draft Report* has been singled out for criticism. With regard to your request for "all drafts... as well as comments" and "a list of all participants involved in review of the document," let me emphasize that the content of the *Draft Report* was decided within the Agency and that the *Draft Report* was reviewed in the inter-agency process in the same manner as any report determined to be of interest outside the Agency. Drafts, comments, and the names of participants represent the internal deliberative process necessary to publish reports. These are considered privileged, and it would be inappropriate to release them. No final decisions about the content were decided outside the Agency.

Again, thank you for your letter. If you have any further questions or need additional information, please contact me, or your staff may call Paul Almeida in the Office of Congressional and Intergovernmental Relations at 202/564-6401.

Sincerely yours,


Marianne L. Horinko
Acting Administrator

Enclosure

CEQ 005215

THE NATIONAL ACADEMIES

Advisors to the Nation on Science, Engineering, and Medicine

Committee to Review the U.S. Climate Change Science Program Strategic Plan

DRAFT Agenda

August 25-27, 2003

**The National Academies Keck Center
500 Fifth Street, NW
Washington, DC 20001**

The objectives of this meeting are:

1. Discuss with federal agency representatives their approach to revising the strategic plan and their expectations of the committee for phase II;
2. Discuss the revised strategic plan;
3. Discuss the CCSP process for obtaining scientific and stakeholder input on the draft strategic plan;
4. Develop the outline for the committee's second report;
5. Develop preliminary findings and recommendations for the committee's second report;
6. Discuss future committee activities.

Monday, August 25, 2003 (Room 100)

OPEN SESSION

| | | |
|------------|--|--|
| 9:30 A.M. | Welcome and introductions | Thomas Graedel |
| 9:45 A.M. | Overview of the Strategic Plan and Responses to Comments | Ghassem Asrar, NASA
Richard Moss, CCSP |
| 11:15 A.M. | Discussion | |
| 12:00 NOON | Lunch (perhaps continue discussion with Mahoney and Moss) | |
| 1:00 P.M. | Chapter 8: Ecosystems | Susan Herrod Julius, USEPA
Steve Schafer, USDA (<i>invited</i>) |
| 1:30 P.M. | Chapter 9: Human Contributions and Responses to Environmental Change | Janet Gamble, USEPA
Caitlin Simpson, NOAA |
| 2:00 P.M. | Chapter 11: Decision Support Resources Development | Susan Avery, NOAA and CCSP
Richard Moss, CCSP |
| 2:30 P.M. | Chapter 14: Communications | Kathryn Parker (EPA) |

| | | |
|-----------|---|--|
| 3:00 P.M. | CCTP Progress and Linkage with CCSP
<i>Director, Climate Change Technology Program</i> | David Conover |
| 3:30 P.M. | Break | |
| 3:50 P.M. | Chapter 10: Modeling Strategy | Jay Fein, NSF |
| 4:15 P.M. | Chapter 12: Observing and Monitoring
the Climate System | Chester Koblinsky
NASA and CCSP |
| 4:40 P.M. | Chapter 13: Data Management and Information | Wanda Farrell, DOE (<i>invited</i>)
Margarita Conkright, NOAA and CCSP
Martha Maiden, NASA (<i>invited</i>)
Clifford Jacobs, NSF (<i>invited</i>) |
| 5:05 P.M. | Chapter 15: International Research and Cooperation | Louis Brown, NSF
David Allen, CCSP |
| 5:30 P.M. | Break | |

Tuesday, August 26, 2003 (Room 105)

CLOSED SESSION

Wednesday, August 27, 2003 (Room 105)

CLOSED SESSION

THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

Committee to Review the U.S. Climate Change Science Program Strategic Plan

DRAFT Agenda

August 25-27, 2003

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500 Fifth Street, NW
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| 5:30 P.M. | Break | |

Tuesday, August 26, 2003 (Room 105)

CLOSED SESSION

Wednesday, August 27, 2003 (Room 105)

CLOSED SESSION

CEQ
655PC

A G E N D A

CCSP Principals Meeting
August 21, 2003, 10:00 – 12 a.m.
Climate Change Science Program office
Suite 250, 1717 Pennsylvania Avenue NW

NRC

- NRC meeting agenda
- Overarching NRC recommendations and initial ideas for response

Agency responsibilities for CCSP synthesis and assessment products

- Table of collated responses

Arctic Assessment Review

- Proposed approach for review

Update on Earth Observation Summit

001964

CEQ 005226

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A G E N D A

CCSP Principals Meeting
August 21, 2003, 10:00 – 12 a.m.
Climate Change Science Program office
Suite 250, 1717 Pennsylvania Avenue NW

NRC

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Update on Earth Observation Summit

001964

CEQ 005228

August 15, 2003 Friday All Editions

SECTION: A; Pg. 12

LENGTH: 686 words

HEADLINE: Heated Rhetoric

BODY:

It may not be unheard of for the federal government to quietly encourage others to sue it - think of the Endangered Species Act and how it sometimes takes a lawsuit to prompt the U.S. Fish and Wildlife Service to add animals to the list. But a recent suit seeking to invalidate a report on global warming, coupled with the Bush administration's uneven regard for the science on this subject is reason for concern.

The attorneys general of Maine and Connecticut this week asked U.S. Attorney General John Ashcroft to investigate whether the White House encouraged the Competitive Enterprise Institute, an anti-regulation group, to sue it to undermine a 2000 report which said that global warming posed significant threats to ecosystems and water supplies. In its lawsuit, the CEI says the report, the National Assessment of the Potential Consequences of Climate Variability and Change, by the scientists from government, industry, universities and non-governmental organizations, does not meet government standards for objectivity and quality.

The attorneys general contend that the lawsuit is not so much a challenge to the science behind global warming as an attempt by the Bush administration to have an outside group get it off the hook for combating climate change. To strengthen their case, the attorneys general cite a June 2002 e-mail from a Myron Ebell, director of Global Warming and International Environmental Policy at CEI, to Phil Conney, the chief of staff at the Council on Environmental Quality at the White House. In it, Mr. Ebell thanks Mr. Conney for soliciting his group's help and notes that this is a "welcome change from past the administration's [standard operating procedure], which is to tell conservative to stop bothering them and to shut up."

Mr. Ebell also says someone at the Environmental Protection Agency - "a fall gal" - needs to go in order to get everyone "rowing in the same direction." Agency administrator Christine Todd Whitman lasted another year, stepping down last month. Mr. Ebell also calls for backtracking by the administration on the National Assessment and warns, "this administration has managed, through incompetence or intention, to create one disaster after another and then to expect its allies to clean up the mess. I don't know whether we have the resources to clean up this one."

While the e-mail indicates there is a close relationship between CEI and the Council on Environmental Quality, interest groups currying favor with the White House is nothing new. What is more troubling and should be investigated by Congress is the Bush administration's pattern of downplaying whether climate change is occurring and, if so, what is causing it. Earlier this summer, it was revealed that the EPA had included a long section on the threats posed by climate change in a draft report on the state of the environment. Officials at the White House first amended and then whittled this part of the report to a few paragraphs.

Then last month, the secretaries of commerce and energy announced they were boosting spending on such climate change reviews by \$103 million. The money would be used to further examine the "uncertainties" surrounding global climate change. This despite the fact that the National Academy of Sciences, which has studied the issue several times at the behest of the administration, said in a report two years ago: "There is general agreement that the observed warming is real and particularly strong within the past twenty years." This is because greenhouse gases, particularly carbon dioxide, are accumulating in the atmosphere as a result of human activities, the science panel said.

Given this pattern of planting doubt, the Maine and Connecticut attorneys general are right to call for an investigation, but not of the relationship between a conservative group and the White House. The investigation, initiated by the Senate, should look at why important information about climate change is being redacted from EPA documents and why endless review, but not action plans, are warranted on such a thoroughly studied topic.

CEQ 179 PC

•
•
• Dana M. Perino

08/21/2003 08:59:32 AM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP, William F. Holbrook/CEQ/EOP@EOP

cc:

Subject: Editorial on that email

CEQ 005230

REFER TO DOJ

AS DOJ 3

DOJ recommends release

file copy



Phil Cooney
08/11/2003 03:44:12 PM

Record Type: Record

To: James Connaughton/CEQ/EOP@EOP
cc:
Subject: FYI: will discuss below with you by phone. PC

----- Forwarded by Phil Cooney/CEQ/EOP on 08/11/2003 03:42 PM -----



Dana M. Perino 08/11/2003 03:02:39 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP
cc:
Subject: Fw: Fred Bever, 207 874 6570

----- Forwarded by Dana M. Perino/CEQ/EOP on 08/11/2003 03:02 PM -----



"Blain.Rethmeier@usdoj.gov" <Blain.Rethmeier@usdoj.gov>
08/11/2003 02:34:14 PM

Record Type: Record

To: "Kelly.A.Johnson@usdoj.gov" <Kelly.A.Johnson@usdoj.gov>, Dana M. Perino/CEQ/EOP@EOP
cc:
Subject: Fw: Fred Bever, 207 874 6570

I assume a response would be that we're reviewing the letter and nothing else?

Getting on plane nowm. Will touch down in hour and half.

--- Sent from my BlackBerry.

-----Original Message-----

From: Isgur, Sarah <Sarah.Isgur@USDOJ.gov>
To: Rethmeier, Blain <Blain.Rethmeier@USDOJ.gov>
Sent: Mon Aug 11 14:25:49 2003

Subject: Fred Bever, 207 874 6570

Actually he has gotten back to me and the story is running today on Maine Public Radio and is expected (by him) to be picked by NPR.

I have pasted the press release he sent...let me know whether you can take this or whether I should send it to Charles.

MAINE, CONNECTICUT ags Call On Ashcroft To Investigate White House Role in Lawsuit Email suggests conspiracy between White House and conservative think
>tank.

AUGUST 11, 2003
CHARLES DOW, SPECIAL ASSISTANT ATTORNEY GENERAL, 207-626-8577

In a letter sent today, Maine Attorney General Steven Rowe and
>Connecticut
>> Attorney General Richard Blumenthal called on United States Attorney
>> General John Ashcroft to investigate whether officials at the White
>House
>> Council on Environmental Quality (CEQ) solicited a conservative
>Washington
>> think tank to sue the federal government in order to invalidate a
>> government document warning of the impacts of global warming.
>> The two state attorneys general obtained an email document through a
>> Freedom of Information Act request that revealed a great intimacy
>between
>> CEQ and the Competitive Enterprise Institute (CEI) on strategizing about
>> ways to undermine the United States' official reports and the authority
>of
>> its officials.
>> Rowe and Blumenthal called for the investigation after discovering an
>> email sent in June 2002 by an executive at CEI, Myron Ebell, to Phil
>> Cooney, the Chief of Staff at CEQ, thanking Cooney for "calling and
>asking
>> for our help." The email goes on to suggest strategies for minimizing
>the
>> problem of global warming, including finding a "fall guy (or gal)...as
>> high up as possible" in the Environmental Protection Agency (EPA) to
>blame
>> for the report, and indicating that CEI might call for then-EPA
>> Administrator Christie Todd Whitman to be fired.
>> According to the official White House website, the White House CEQ
>> "coordinates federal efforts and works closely with agencies and other
>> White House offices in the development of environmental policies and
>> initiatives." According to the CEI's website, the organization is "a
>> non-profit, non-partisan public policy group dedicated to the principles
>> of free enterprise and limited government."
>> The lawsuit was filed by CEI against the White House Office of Science
>and
>> Technology Policy and the National Science and Technology Council. In
>the
>> suit, CEI argues that the National Assessment of Climate Variability and
>> Change (National Assessment) and EPA's Climate Action Report 2002 should
>> be invalidated. The National Assessment is a peer-reviewed study
>> documenting global warming and identifying its dangers. Its findings
>were
>> relied upon in the EPA's Climate Action Report 2002, which was produced
>by

>> the United States pursuant to its obligations under the 1992 Rio Treaty
>on
>> climate change. CEI alleges that the federal report failed to meet
>> scientific standards for objectivity and utility.
>> Maine Attorney General Steven Rowe stated, "It appears that certain
>White
>> House officials conspired with an anti-environmental special interest
>> group to cause the lawsuit to be filed against the federal government."
>> "The idea that the Bush Administration may have invited a lawsuit from a
>> special interest group in order to undermine the federal government's
>own
>> work under an international treaty is very troubling."
>> "We believe an investigation is necessary to determine whether the idea
>of
>> this lawsuit came from the White House itself, and if so, whether it
>> represents improper conduct by public officials."
>> Maine, Connecticut and Massachusetts filed a lawsuit in June, 2003
>against
>> the EPA alleging that the federal agency is required under the federal
>> Clean Air Act to regulate emissions of carbon dioxide.

CEQ 180 PC



Dana M. Perino

08/12/2003 08:25:14 AM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP

cc:

Subject: Maine, Conn. AGs question origin of lawsuit, seek probe

well, they didn't use my good quote

----- Forwarded by Dana M. Perino/CEQ/EOP on 08/12/2003 08:25 AM -----



William F. Holbrook

08/12/2003 08:18:59 AM

Record Type: Record

To: Dana M. Perino/CEQ/EOP@EOP

cc:

Subject: Maine, Conn. AGs question origin of lawsuit, seek probe

The Associated Press State & Local Wire

The materials in the AP file were compiled by The Associated Press. These materials may not be republished without the express written consent of The Associated Press.

August 12, 2003, Tuesday, BC cycle

1:51 AM Eastern Time

SECTION: State and Regional

LENGTH: 350 words

HEADLINE: Maine, Conn. AGs question origin of lawsuit, seek probe

BYLINE: By GLENN ADAMS, Associated Press Writer

DATELINE: AUGUSTA, Maine

BODY:

Attorneys general in two New England states suggested Monday that the White House is behind a lawsuit that seeks to invalidate a federal report on global warming.

CEQ-005235

Maine Attorney General G. Steven Rowe and Connecticut Attorney General Richard Blumenthal, both Democrats, also asked U.S. Attorney General John Ashcroft for an investigation.

Rowe and Blumenthal said they want to know whether White House officials working at the Council on Environmental Quality solicited a lawsuit filed by a conservative Washington think tank to discredit a 2000 report that documents the dangers of global warming.

The lawsuit was filed last week by the Competitive Enterprise Institute against the White House Office on Science and Technology.

Blumenthal said a June 2002 e-mail between a CEI executive and White House staffers "indicates a secret initiative by the administration to invite and orchestrate a lawsuit against itself to discredit an official United States government report on global warming dangers."

Such action, Blumenthal said, could constitute improper and possibly illegal conduct.

Rowe said the idea the administration is inviting a lawsuit from a special interest group in order to undermine the federal government's own work under an international treaty "is very troubling."

Dana Perino, spokesperson for the White House Council on Environmental Quality, dismissed assertions that the lawsuit was contrived as "100 percent false and absurd."

Perino added that the White House, which released copies of the e-mail in response to a Freedom of Information Act request, has been "perfectly forthcoming" about its communications with CEI.

A message left with the Justice Department was not immediately returned Monday afternoon.

The CEI's lawsuit argues that the National Assessment of Climate Variability and Change and the Environmental Protection Agency's Climate Action Report of 2002 should be invalidated.

The latter report includes references to the National Assessment and documents similar likely impacts, Rowe and Blumenthal say in a letter to Ashcroft.

LOAD-DATE: August 12, 2003

CEQ 180 PC

• Dana M. Perino

08/12/2003 08:25:14 AM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP

cc:

Subject: Maine, Conn. AGs question origin of lawsuit, seek probe

well, they didn't use my good quote

----- Forwarded by Dana M. Perino/CEQ/EOP on 08/12/2003 08:25 AM -----



William F. Holbrook
08/12/2003 08:18:59 AM

Record Type: Record

To: Dana M. Perino/CEQ/EOP@EOP

cc:

Subject: Maine, Conn. AGs question origin of lawsuit, seek probe

The Associated Press State & Local Wire

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August 12, 2003, Tuesday, BC cycle

1:51 AM Eastern Time

SECTION: State and Regional

LENGTH: 350 words

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BYLINE: By GLENN ADAMS, Associated Press Writer

DATELINE: AUGUSTA, Maine

BODY:

Attorneys general in two New England states suggested Monday that the White House is behind a lawsuit that seeks to invalidate a federal report on global warming.

000697

CEQ 005237

Maine Attorney General G. Steven Rowe and Connecticut Attorney General Richard Blumenthal, both Democrats, also asked U.S. Attorney General John Ashcroft for an investigation.

Rowe and Blumenthal said they want to know whether White House officials working at the Council on Environmental Quality solicited a lawsuit filed by a conservative Washington think tank to discredit a 2000 report that documents the dangers of global warming.

The lawsuit was filed last week by the Competitive Enterprise Institute against the White House Office on Science and Technology.

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The latter report includes references to the National Assessment and documents similar likely impacts, Rowe and Blumenthal say in a letter to Ashcroft.

LOAD-DATE: August 12, 2003

1275_f_75tgi003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Scott Rayder <Scott.Rayder@noaa.gov> (Scott Rayder <Scott.Rayder@noaa.gov> [UNKNOWN])

CREATION DATE/TIME: 14-AUG-2003 15:22:48.00

SUBJECT:: FOIA on CCSP

TO: Craig Montesano <Craig.Montesano@noaa.gov> (Craig Montesano <Craig.Montesano@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: Jean Carter Johnson <Jean.Carter.Johnson@noaa.gov> (Jean Carter Johnson <Jean.Carter.Johnson@noaa.gov> [UNKNOWN])
READ: UNKNOWN

TO: Mary Glackin <Mary.Glackin@noaa.gov> (Mary Glackin <Mary.Glackin@noaa.gov> [UNKNOWN])
READ: UNKNOWN

CC: Margarita Gregg <Margarita.Gregg@noaa.gov> (Margarita Gregg <Margarita.Gregg@noaa.gov> [UNKNOWN])
READ: UNKNOWN

CC: Vicki Horton <Vicki.Horton@noaa.gov> (Vicki Horton <Vicki.Horton@noaa.gov> [UNKNOWN])
READ: UNKNOWN

CC: Ahsha Tribble <Ahsha.Tribble@noaa.gov> (Ahsha Tribble <Ahsha.Tribble@noaa.gov> [UNKNOWN])
READ: UNKNOWN

BCC: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])
READ: UNKNOWN

TEXT:
Jean,

Mary Glackin, Craig Montesano, Mahoney's climate staff, and I will have to review this package . . .

□ Received 8/8/03, from Andrew C. Revkin, The New York Times, requesting copies of all communications from federal agencies or the Executive Office of the President, particularly the White House Counsel's Office, regarding the Climate Change Science Program Strategic Plan and environmental quality.

Dr. Mahoney will probably not be in to lend his expertise but we may have to call him at home for data. (Ahsha--please make sure we communicate this to him). Typically, how long does it take to gather the data on one of these??? His absence may push this one back a while.

Thanks,
Scott

- Scott.Rayder.vcf===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:
begin:vcard
n:Rayder;Scott
tel;pager:1-888-480-2691

003467

1275_f_75tgi003_ceq.txt

tel;cell:202-253-5259
tel;fax:202-408-9674
tel;home:4802691@skytel.com (for text messages)
tel;work:202-482-3436
x-mozilla-html:FALSE
url:http://www.noaa.gov
org:NOAA
version:2.1
email;internet:Scott.Rayder@noaa.gov
title:Chief of Staff
adr;quoted-printable:;;14th & Constitution=0D=0ARoom 5128;Washington;DC;20230;

fn:Scott Rayder
end:vcard

===== END ATTACHMENT 1 =====

CEQ 125 PC



Phil Cooney
08/15/2003 08:19:31 AM

Record Type: Record

To: Dinah Bear/CEQ/EOP@EOP

CC:

Subject: Fw: latest version of Jeffords Draft Rpt on Environment response

your thoughts? thanks Phil

----- Forwarded by Phil Cooney/CEQ/EOP on 08/15/2003 08:19 AM -----



Debbie S. Fiddelke
08/14/2003 04:18:08 PM

Record Type: Record

To: Phil Cooney/CEQ/EOP@EOP, Bryan J. Hannegan/CEQ/EOP@EOP

CC:

Subject: Fw: latest version of Jeffords Draft Rpt on Environment response

Ed would like your thoughts on this. Thanks!

----- Original Message -----

From: Krenik.Ed@epamail.epa.gov

To: Debbie S. Fiddelke/CEQ/EOP@EOP

Cc:

Date: 08/14/2003 03:42:38 PM

Subject: Fw: latest version of Jeffords Draft Rpt on Environment response

Deb, since I don't have Phil's or Brian's email can you forward this letter to them and ask that they get back to me with changes. Thank you. I miss your voice. I am having withdrawals. Ed

Sent from my BlackBerry Wireless Handheld (www.BlackBerry.net)

From: Donald McKinnon

Sent: 08/13/2003 08:22 PM

To: Ed Krenik/DC/USEPA/US@EPA

Cc: John Reeder/DC/USEPA/US@EPA; Michele Mckeever/DC/USEPA/US@EPA;

Paul Almeida/DC/USEPA/US@EPA

Subject: latest version of Jeffords Draft Rpt on Environment response

001043
CEQ 005243

DRAFT DRAFT DRAFT

DRAFT

STRATEGIC PLAN
CLIMATE CHANGE TECHNOLOGY PROGRAM

[Preliminary Concepts for the Front Piece]

[Planned for release as a draft for public comment in October 2003, in conjunction with a series of technical workshops to be held in the Fall 2003; and for final publication in April 2004, in support of the FY 2005 Budget]

DRAFT
August 15, 2003

Deleted: Draft CCTP Strategic Plan
Rev5A.doc

BH Edits to bh edits to cctp strategic plan draft5.doc

3 3 0

CEQ 005245

1286_f_171hi003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Ahsha Tribble <Ahsha.Tribble@noaa.gov> (Ahsha Tribble <Ahsha.Tribble@noaa.gov> [UNKNOWN])

CREATION DATE/TIME: 15-AUG-2003 20:15:09.00

SUBJECT:: Preparation for NRC review (ATTACHMENT)

TO: CCSP_INFO@usgcrp.gov (CCSP_INFO@usgcrp.gov [UNKNOWN])
READ: UNKNOWN

TO: CCSP@usgcrp.gov (CCSP@usgcrp.gov [UNKNOWN])
READ: UNKNOWN

BCC: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP [CEQ])
READ: UNKNOWN

TEXT:
Attached is the draft agenda for the NRC meeting. Speaker confirmations are expected to be made early next week. (I apologize for not attaching it to the original email.)

Thanks,
Ahsha

Ahsha N. Tribble, Ph.D.
DOC/NOAA
HCHB/Room 5804
14th & Constitution Ave, NW
Washington, DC 20230
202-482-5920 (DoC)
202-482-6318 (Fax)
Ahsha.Tribble@noaa.gov

- RAFT Meeting agenda - Aug03 rev2.doc===== ATTACHMENT 1 =====

U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE

SUITE 2320 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6301
(202) 225-6371
TTY: (202) 225-4410
<http://www.house.gov/science/welcome.htm>

September 4, 2003

The Honorable Donald L. Evans
Secretary, Department of Commerce
Room 5516
U.S. Department of Commerce
14th & Constitution Ave. NW
Washington, DC 20230

Dear Secretary Evans:

As Chairman of the House Subcommittee on Environment, Technology, and Standards, with jurisdiction over climate change research, I am writing to request specific information about the recently completed Strategic Plan for the U.S. Climate Change Science Program (CCSP). This plan was released originally in draft form in November 2002. The final plan reflects changes made in response to public comments on the draft and the National Research Council's (NRC) report "Planning Climate and Global Change Research: A Review of the Draft U.S. Climate Change Science Program Strategic Plan."

I am writing to request a written description of how each of the NRC recommendations was addressed in the final plan. The description should point to specific language in the plan that was added to address a recommendation or should provide a detailed explanation as to why a recommendation was rejected.

Please provide this information to me no later than September 19, 2003. If you have questions or believe more time will be necessary to meet this request, please contact Amy Carroll of my Subcommittee staff at 202-225-8844 or amy.carroll@mail.house.gov. Thank you for your leadership on this issue.

Sincerely,



Vernon J. Ehlers
Chairman
Subcommittee on Environment, Technology, and Standards
U.S. House of Representatives

Cc: Dr. James Mahoney, Assistant Secretary of Commerce for Oceans and Atmosphere
Dr. Richard Moss, Director, U.S. Global Change Research Program Office
Brenda Becker, Assistant Secretary of Commerce for Legislative Affairs
Craig Montesano, Congressional Affairs Specialist, NOAA

Hannegan, Bryan J.

From: Ahsha Tribble [Ahsha.Tribble@noaa.gov]
Sent: Thursday, September 11, 2003 4:39 PM
To: CCSP@usgcrp.gov; CCSP_INFO@usgcrp.gov
Subject: Request from House Science Committee (action needed)

CCSP Principals,

Secretary Evans received a request from Honorable Vernon J. Ehlers (Chairman, Subcommittee on Environment, Technology, and Standards) to provide a written description of how we addressed each NRC recommendation in the final version of the Strategic Plan.

During the meeting/teleconference prior to the August 25th NRC Review, we discussed that responses had been drafted for each of the NRC recommendations. We have since cleaned up the draft and are submitting it to you for your review. This document is intended to fulfill our response to the request by Honorable Ehlers.

As this is a time-sensitive issue, we ask that you review this document and provide any comments by **COB Wednesday, September 17**. Please send your comments to me and cc Richard.Moss@pnl.gov and James.R.Mahoney@noaa.gov.

Thank you,
Ahsha

Attachments:

- 1) Request from Honorable Ehlers
- 2) Draft Response

--

Ahsha N. Tribble, Ph.D.
Technical Chief of Staff
Office of Assistant Secretary of Commerce
For Oceans and Atmosphere
HCHB/Room 5804
14th & Constitution Ave, NW
Washington, DC 20230
202-482-5920 (DoC)
202-482-6318 (Fax)

From: "Anderson, Margot" <Margot.Anderson@hq.doe.gov> on 09/04/2003 01:39:15 PM

Record Type: Record

To: See the distribution list at the bottom of this message
cc: "Bailey, Vicky" <Vicky.Bailey@hq.doe.gov>, "Friedrichs, Mark" <Mark.FRIEDRICHS@hq.doe.gov>, "Staub, John" <John.Staub@hq.doe.gov>, "Vieth, Jill" <Jill.Vieth@hq.doe.gov>
Subject: REVISED press materials (drafts only - do not circulate)

My apologies - please use this version of the press release.

<<1605b Press Release v4.doc>>

-----Original Message-----

From: Anderson, Margot

Sent: Thursday, September 04, 2003 1:14 PM

To: Bryan Hannegan (E-mail); Phil Cooney (E-mail); Conover, David; Dobriansky, Larisa; DeVito, Vincent; Bill Hohenstein (E-mail); Joe Kruger (E-mail); Harvey.Reid@epamail.epa.gov; Eule, Stephen; Cobb, Al

Cc: Bailey, Vicky; Friedrichs, Mark; Staub, John; Vieth, Jill

Subject: press materials (drafts only - do not circulate)

All,

[REDACTED]

USDA - still need you press contacts, please.

Margot

<< File: Talking points August 2003 v2.doc >> << File: 1605b Press Release v3.doc >>


1605b Press
Release v4.doc

Message Sent To:

Bryan J. Hannegan/CEQ/EOP@EOP
Phil Cooney/CEQ/EOP@EOP
"Conover, David" <David.Conover@hq.doe.gov>
"Dobriansky, Larisa" <Larisa.Dobriansky@hq.doe.gov>
"DeVito, Vincent" <Vincent.DeVito@hq.doe.gov>
"Bill Hohenstein (E-mail)" <whohenst@oce.usda.gov>
"Joe Kruger (E-mail)" <kruger.joe@epa.gov>
Harvey.Reid@epamail.epa.gov
"Eule, Stephen" <Stephen.Eule@hq.doe.gov>
"Cobb, Al" <Al.Cobb@hq.doe.gov>

From: Bryan J. Hannegan on 09/04/2003 09:12:24 PM

Record Type: Record

To: "Anderson, Margot" <Margot.Anderson@hq.doe.gov>

cc: See the distribution list at the bottom of this message

Subject: CEQ comments on 1605(b) press materials 



bh edits 1605b Press Release \bh edits talking points August 2003

Message Copied

To: _____

phil cooney/ceq/eop@eop
"conover, david" <david.conover@hq.doe.gov>
"dobriansky, larisa" <larisa.dobriansky@hq.doe.gov>
"devito, vincent" <vincent.devito@hq.doe.gov>
"bill hohenstein (e-mail)" <whohenst@oce.usda.gov>
"joe kruger (e-mail)" <kruger.joe@epa.gov>
harvey.reid@epamail.epa.gov
"eule, stephen" <stephen.eule@hq.doe.gov>
"cobb, al" <al.cobb@hq.doe.gov>
"bailey, vicky" <vicky.bailey@hq.doe.gov>
"friedrichs, mark" <mark.friedrichs@hq.doe.gov>
"staub, john" <john.staub@hq.doe.gov>
"vieth, jill" <jill.vieth@hq.doe.gov>

004258

Cooney, Phil

From: sbodman@doc.gov
Wednesday, September 10, 2003 6:22 PM
Sent: conrad.c.lautenbacher@noaa.gov; James_Andrews@onr.navy.mil; Olsen, Kathie L.;
To: emil.frankel@ost.dot.gov; eslater@osophs.dhhs.gov; gasrar@hq.nasa.gov; Connaughton,
James; jrm@usda.gov; Marburger, John H.; johnson.stephen@epa.gov;
marcus.peacock@omb.eop.gov; d.nelson@state.gov; rcolwell@nsf.gov;
steven_griles@ios.doi.gov; Robert.Card@hq.doe.gov; emsimmons@usaid.gov;
Greg.Withee@noaa.gov
Cc: ann_klee@ios.doi.gov; whohenst@OCE.USDA.gov; gpaules@hq.nasa.gov;
watsonhl@state.gov; James.R.Mahoney@noaa.gov; Parrish, Jobi A.; Beale.john@epa.gov;
Kortuem.patrice@epa.gov; Kevin.Kolevar@hq.doe.gov; catletta@state.gov;
linda.lawson@ost.dot.gov; Lynn_Scarlett@ios.doi.gov; Mleinen@nsf.gov;
mcleave@hq.nasa.gov; mmoore@osophs.dhhs.gov; Cooney, Phil; reifsnyderDA@state.gov;
Scott.Rayder@noaa.gov; jschafer@usaid.gov; KBarrett@usaid.gov;
yvonne.brown@ost.dot.gov; Joy.Viars@hq.doe.gov; Vicki.Horton@noaa.gov;
Pat.A.Simms@noaa.gov; Conde, Roberta L.; PThorne@doc.gov; Kleibacker.lu-ann@epa.gov;
barbara_diehl@ios.doi.gov; Lynn_Scarlett@ios.doi.gov; David.Conover@hq.doe.gov;
RBonjean@doc.gov; KWhitworth@doc.gov; JAckerly@doc.gov; SHawkins@doc.gov;
Margarita.Gregg@noaa.gov; Sherron_White@omb.eop.gov; Donna.Warren@noaa.gov
Subject: Interagency Working Group on Climate Change Science and Technology (IWGCCST) --
September 25



1_Agenda
;CCST Mtng 25Sep0

The next meeting of the IWGCCST will be held Thursday, September 25, 10:00 a.m. - 12:00 p.m. at the Department of Commerce in Room 4830. You should use the Secretary's entrance on 15th Street (at the blue awning) for access to the building.

Attached is the agenda for this meeting. Please suggest any additions and/or deletions to the agenda by sending your comments to: Margarita.Gregg@noaa.gov or call (202) 482-3252. You should also confirm your attendance with Margarita.

I look forward to seeing you.

Sam

(See attached file: 1_Agenda IWGCCST Mtng 25Sep03.doc)

Interagency Working Group on Climate Change Science and Technology

**Thursday, September 25, 2003, 10:00 a.m. to 12:00 p.m.
Department of Commerce, Rm. 4830**

Agenda

| Time | Item | Invited
Discussion Lead |
|-------------|-------------------------------------|--|
| 10:00 | Call to Order | Dep. Sec. Bodman, DOC |
| 10:05 | Legislative and Policy Update | Chairman Connaughton, CEQ |
| 10:20 | International Update | Senior Climate Negotiator Watson,
State |
| 10:35 | Budget Update | Assoc. Director Peacock, OMB |
| 10:45 | Earth Observation Summit Update | Assist. Admin. Withee, NOAA |
| 11:00 | CCSP Update | Ass't. Sec. Mahoney, DOC |
| 11:15 | CCTP Deliverables | CCTP Dir. Conover, DOE |
| 11:40 | Other Topics and General Discussion | Dep. Sec. Bodman, DOC |
| 12:00 | Adjourn | |

Conde, Roberta L.

From: sbodman@doc.gov
Sent: Wednesday, September 10, 2003 6:22 PM
To: conrad.c.lautenbacher@noaa.gov; James_Andrews@onr.navy.mil; Olsen, Kathie L.; emil.frankel@ost.dot.gov; eslater@osophs.dhhs.gov; gasrar@hq.nasa.gov; Connaughton, James; jrm@usda.gov; Marburger, John H.; johnson.stephen@epa.gov; marcus.peacock@omb.eop.gov; d.nelson@state.gov; rcolwell@nsf.gov; steven_griles@ios.doi.gov; Robert.Card@hq.doe.gov; emsimmons@usaid.gov; Greg.Withee@noaa.gov
Cc: ann_klee@ios.doi.gov; whohenst@OCE.USDA.gov; gpaules@hq.nasa.gov; watsonhl@state.gov; James.R.Mahoney@noaa.gov; Parrish, Jobi A.; Beale.john@epa.gov; Kortuem.patrice@epa.gov; Kevin.Kolevar@hq.doe.gov; catlettla@state.gov; linda.lawson@ost.dot.gov; Lynn_Scarlett@ios.doi.gov; Mleinen@nsf.gov; mcleave@hq.nasa.gov; mmoore@osophs.dhhs.gov; Cooney, Phil; reifsnnyderDA@state.gov; Scott.Rayder@noaa.gov; jschafer@usaid.gov; KBarrett@usaid.gov; yvonne.brown@ost.dot.gov; Joy.Viars@hq.doe.gov; Vicki.Horton@noaa.gov; Pat.A.Simms@noaa.gov; Conde, Roberta L.; PThorne@doc.gov; Kleibacker.lu-ann@epa.gov; barbara_diehl@ios.doi.gov; Lynn_Scarlett@ios.doi.gov; David.Conover@hq.doe.gov; RBonjean@doc.gov; KWhitworth@doc.gov; JAckerly@doc.gov; SHawkins@doc.gov; Margarita.Gregg@noaa.gov; Sherron_White@omb.eop.gov; Donna.Warren@noaa.gov
Subject: Interagency Working Group on Climate Change Science and Technology (IWGCCST) -- September 25



1_Agenda
iCCST Mtng 25Sep0

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I look forward to seeing you.

Sam

(See attached file: 1_Agenda IWGCCST Mtng 25Sep03.doc)

001762

Interagency Working Group on Climate Change Science and Technology

**Thursday, September 25, 2003, 10:00 a.m. to 12:00 p.m.
Department of Commerce, Rm. 4830**

Agenda

| Time | Item | Invited Discussion Lead |
|-------|--|------------------------------|
| 10:00 | Call to Order | Dep. Sec. Bodman, DOC |
| 10:05 | Legislative and Policy Update | Chairman Connaughton, CEQ |
| 10:20 | Budget Update | Assoc. Director Peacock, OMB |
| 10:30 | Earth Observation Summit Update | Ass't. Admin. Withee, NOAA |
| 10:45 | CCSP Update | Ass't. Sec. Mahoney, DOC |
| 11:05 | International Update | U/S Dobriansky, State |
| 11:20 | CCTP Deliverables | CCTP Dir. Conover, DOE |
| 11:45 | International Partnership for the Hydrogen Economy and International Energy Cooperation Task Force | Director OCCP Eule, DOE |
| 11:50 | Other Topics and General Discussion | Dep. Sec. Bodman, DOC |
| 12:00 | Adjourn | |

9.10.03
CEQ
328 pc

Phil,

Here are five copies of the expenditure report. It is also posted on the OMB website under Legislative Information, Reports to Congress. The link to the report is:

<http://www.whitehouse.gov/omb/legislative/index.html>

As I mentioned in my voicemail yesterday, I have also included the 2000 annual report which covers some of EPA's climate programs. It provides estimates of MMTCE emissions prevented by ENERGY STAR and other voluntary programs.

Since this is the only extra copy of the report I have, I can't provide one to Ted Gayer. If I find any additional information that I can send electronically, I will send it to both you and him. If you need anything further, let me know.



Christine McDonald
5-6944

000768

CEQ 005261

Hannegan, Bryan J.

From: Anderson, Margot [Margot.Anderson@hq.doe.gov]
Sent: Friday, September 12, 2003 5:43 PM
To: Hannegan, Bryan J.
Subject: RE: General 1605(b) Guidelines Progress

Thanks Bryan,

Two files attached:

[Redacted]

-----Original Message-----

From: Hannegan, Bryan J. [mailto:Bryan_J._Hannegan@ceq.eop.gov]
Sent: Friday, September 12, 2003 5:07 PM
To: Anderson, Margot
Subject: RE: General 1605(b) Guidelines Progress

[Redacted]

-----Original Message-----

From: Anderson, Margot [mailto:Margot.Anderson@hq.doe.gov]
Sent: Friday, September 12, 2003 4:40 PM
To: Hannegan, Bryan J.
Subject: General 1605(b) Guidelines Progress

Bryan,

[Redacted]

Margot

Greenhouse Effects/1605(b)
General Guidelines Review and Roll-Out

09/12/03

CEQ 005262

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SANTA BARBARA • SANTA CRUZ

CHARLES F. KENNEL
DIRECTOR
SCRIPPS INSTITUTION OF OCEANOGRAPHY

9500 GILMAN DRIVE
LA JOLLA, CALIFORNIA 92093-0210
TEL: (858) 534-2826
FAX: (858) 453-0167

September 15, 2003

Kathie Olsen, Associate Director for Science, OSTP
Ralph Cicerone, Chancellor, University of California, Irvine
Mark Abbott, Dean, College of Oceanic & Atmospheric Sciences, Oregon State University
Sean Solomon, Director, Department of Terrestrial Magnetism, Carnegie Institution of Washington

Handwritten notes and signatures:
Jack...
AMPA
7/5/03

Colleagues:

Enclosed is the OSTP white paper dated July 17, 1995, that gave US sanction to what emerged or the now fairly well developed "Integrated Global Observing Strategy (IGOS)." I co-chaired the CENR task force that helped develop these ideas. A personal version of them is described on policy-maker terms in a later paper, which Pierre Morel, Greg Williams, and I published in the journal, "Consequences - The Nature and Implications of Environmental Change."

I hope this starts off our discussions.

Sincerely,

Charles F. Kennel

Enclosures

001560



Keeping Watch on the Earth: an Integrated Global Observing Strategy

By Charles F. Kennel, Pierre Morel, and Gregory J. Williams

Unlike the terrestrial globes that stand in our libraries and offices, the Earth itself is ever changing, as is evident in clouds and storms and the passage of the seasons. The levels of lakes and oceans rise and fall, as does the land itself. Glaciers come and glaciers go. Even the continents move.

Human beings have watched these and other changes in the natural world since the dawn of civilization, and for several thousand years have endeavored to document and measure them. But ours is the first generation with the ability to see and quantify these patterns of change on a global scale. We can view the entire surface of the Earth from the vantage point of space, and we now share this information, freely and instantly, around the world.

These new abilities come at a time of tremendous economic and social expansion, and have become indispensable because of the effects of these changes. The population of the world has grown from just over 2 billion people in 1930 to almost 6 billion today and will likely reach 12 billion sometime in the next century. World economic output has grown even faster than population itself, rising from \$13,500 billion in 1970 to \$31,000 billion per year in 1994.

The effects of increasing population and economic growth have reached the point where we have not only converted much of the land surface to our own ends, but also alter the chemistry of the air and, to a degree yet unknown, the climate of the entire planet. For better or worse, we stand on the brink of two unprecedented developments in human history: (1) the ability to alter the natural environment on a global scale, and (2) the capacity to detect and track the course of these changes and thus understand and respond to them. The former can happen without much forethought. The latter cannot.

This article examines the part of this challenge that depends on systematic observations of the Earth, and points to the advantages of pursuing an integrated global observing strategy dedicated to this task.

AN HISTORICAL PERSPECTIVE

In the U.S., public recognition of the environmental impacts of human activities is more than 100 years old, stemming from the efforts of such colorful and diverse personalities as John Wesley Powell and Theodore Roosevelt. In the 1960s, however, a broader public awareness emerged with the advent of the Space Age. Our first-ever look at the entire planet--a color photograph taken in 1968 from Apollo 8 on the first manned flight to the Moon--gave us as well our first chance to see the Earth from afar: round and blue in the black immensity of space. This single image so seized the public imagination and so concentrated a developing international concern that it became the emblem of Earth Day, first celebrated two years later.

The new look at ourselves from space, so unlike the static globes of old-time geographers, conveyed a

sense of action, change, and inter-connection. Later images from space showed mighty dust storms sweeping across the Sahara, initiating a process of atmospheric transport that would fertilize the Amazonian rain forest, 6000 miles away. The view from space also identified the largest polluted air mass in the world--not over Los Angeles, or Moscow, or Mexico City, but above the uninhabited South Atlantic--and it allowed us to identify its many small sources, where fields and trees were deliberately being burned in Africa and South America. The global view from space, in 1964, offered the first cinematographic images of clouds from a satellite in a *geostationary orbit*: far enough away to circle the Earth in synchrony with the planet's rotational period of twenty-four hours, thus allowing an uninterrupted view of a selected area, such as the Western or Eastern U.S. These pictures, now a common staple of televised weather broadcasts, communicate the awesome power of weather systems and a sense of how their paths are projected forward in practical weather prediction.

Meteorology was the first scientific discipline to utilize continuous, or real-time observations to predict changes in the environment. International telegraphic exchange of barometric pressure data enabled one-day weather forecasts, initiated in Europe by the French astronomer LeVerrier in 1876. Beginning in the 1930s, measurements of the air above the surface were routinely made from instrumented balloons, and by the 1950s extensive compilation of these data made one- to two-day regional forecasts possible. By the 1970s global weather predictions had been pushed another day in advance, thanks to a network of surface and upper-air observations organized by the international World Weather Watch. Finally, in the 1980s, extensive use of computer models of the atmospheric circulation and access to global observations from polar- orbiting and geostationary satellites enabled forecasts to be extended to five days. The lesson was clear: accurate weather prediction beyond a couple of days requires global coverage of the Earth's atmosphere.

ENVIRONMENTAL PROBLEMS THAT DEMAND GLOBAL DATA

Is there hope of extending the range of reliable weather forecasts any further? The answer is yes, but the task requires monitoring a broader set of variables, and help from scientific disciplines that lie outside the traditional domain of meteorology. The most important of these areas of study are oceanography (because of the exchange and redistribution of energy and fresh water between the oceans and the atmosphere), geography (through the effects of surface features on air circulation), and atmospheric chemistry (because of the impacts of trace chemicals and solid particles on atmospheric radiation). Others include hydrology, soil science, and plant ecology. Each of these disciplines, like meteorology, now utilizes global Earth observations from space. Through the early initiatives of NASA and of other national and international research efforts--including the multi-agency U.S. Global Change Research Program (USGCRP)--scientists from these and other fields now work together to provide a multidisciplinary approach to answering environmental questions.

The USGCRP identifies four major challenges in global environmental sciences. Two of them deal directly with climate and all of them address not only important scientific questions, but areas of research that are directed at practical applications and societal benefits. These four priority areas of research are:

- Stratospheric ozone depletion and increase in surface UV radiation;
- Prediction of climate fluctuations on time scales of seasons to years;
- Climate change over decades and centuries; and
- Changes in land cover and in terrestrial and marine ecosystems.

In the order given here, they run from most mature to more exploratory in terms of our ability to acquire the relevant observations, to understand the mechanisms involved in the observed phenomena, and to inform social and economic decision-makers of their impacts.

A PATHFINDER FOR INTERNATIONAL SCIENTIFIC DECISION MAKING: STRATOSPHERIC OZONE AND UV RADIATION

Environmental consequences of industrialization have long been viewed in terms of their local or in some cases, regional impacts. Changes in air or water quality and ground pollution were customarily recognized at the level of cities or regions, as were remedial actions, even if controls were mandated through national legislation. The discovery of an annual springtime depletion of stratospheric ozone over Antarctica, about ten years ago, provided evidence, for perhaps the first time, of an environmental impact of a much broader, global scale that was directly traceable to a single human activity. As a result of this discovery, new ground was broken in linking scientific findings and international policy action.

Between 1970 and 1974, scientists recognized the possibility that industrial compounds of chlorine, fluorine, carbon, and hydrogen (*chlorofluorocarbons, or CFCs*) could bring about a global depletion of ozone in the stratosphere. CFCs are not products of nature, but are produced commercially as inert gases for use in refrigerators and air conditioners, the production of foam plastics, and gas-propelled sprays. Released at ground level, these long-lived gases would according to theory become thoroughly mixed in the atmosphere, both horizontally and vertically. The threat arises when they reach the high atmosphere, tens of miles above the ground, where they are exposed to energetic solar radiation that splits them into components capable of eating away at the Earth's protective ozone layer. After an initial flurry of public interest, the policy debate subsided, in part because of the lack of observational evidence for the predicted effect.

Ground-based measurements suggesting significant global ozone depletion and the appearance of a springtime Antarctic "ozone hole" were first reported a decade later, in 1985. While the effect was first detected in measurements made from the ground, identifying the cause of diminished ozone required *in situ* observations with instruments carried in jet-aircraft to stratospheric altitudes where the chemical reactions were taking place. But only measurements from satellites could determine the extent of the phenomenon. Since 1979 global ozone data have been obtained by NASA's polar-orbiting Total Ozone Mapping Spectrometer. These observations demonstrated that the ozone hole was confined to the vicinity of the Antarctic continent by atmospheric circulation, and helped scientists uncover the mechanism of ozone destruction. More comprehensive evidence that Antarctic ozone loss is of human origin was provided by the agency's Upper Atmosphere Research Satellite that was launched in 1991.

No one nation is uniquely responsible for the destruction of ozone in the stratosphere, nor can any country, acting alone, put the brakes on this unintended but potentially serious interference with one of the planet's natural safeguards. At the time of the alarm, CFCs were produced or employed in manufacturing in many industrialized nations, and released in some form in every country. The probable consequences appeared to be as widespread as the causes. Reduction in total ozone in the atmosphere allows a heavier dose of solar ultraviolet radiation to reach the Earth's surface, with potentially serious effects on skin and eyes and the immune systems of people everywhere. Increased ultraviolet radiation also harms *phytoplankton*, the minute, floating organisms that live near the sea surface and are the primary food source of all life in the oceans. In view of this hazard, and as soon as the main cause for ozone loss became reasonably clear, 148 of the world's nations signed the 1987 Montreal Protocol on Substances Depleting the Ozone Layer and ensuing amendments that banned the production of CFCs.

It was the second time in the history of the world that nations acted together, by treaty, to limit the

harmful impacts of a particular activity on human health and the global environment. Like the Nuclear Test Ban Treaty of 1963, the Montreal Protocol provides a beacon of hope for future international action on environment protection.

Today, ground- and space-based sensors are used to verify that the Montreal Protocol is in fact working. Declining concentrations of key ozone-depleting substances have been found by a network of surface stations and satellite measurements (Fig. 1). Yet there is still no firm international agreement to monitor ozone from space, nor binding commitment to maintain the appropriate ground-based networks for stratospheric ozone and ultraviolet radiation measurements. As a result, the door is still open for possible future surprises insofar as ozone and UV radiation are concerned.

THE PRESENT CHALLENGE: SEASONAL-TO-INTERANNUAL CLIMATE PREDICTION

Throughout most of the first half of the present century, weather predictions were made for one or at most two days in advance. In the span of forty years, the useful range of such predictions was extended to five days--a working week--with important gains for human decision-making. Still, many of our endeavors, including most notably agriculture, operate on time scales of a season or a year or more. Can we learn to predict regional variations in weather patterns and transient climate fluctuations several months, or a year, in advance? As we shall see, this cannot be done without more comprehensive observations--particularly measurements of winds over the surface of the oceans, the heat content of the upper ocean, precipitation over land, and the storage of moisture in soils.

In short, seasonal-to-interannual climate prediction requires an observational strategy with more dimensions than those needed for day-to-day weather forecasts or for tracking stratospheric ozone. A wider range of variables must be monitored, some by sensors on ocean platforms, some on the land, and others on spacecraft that circle the globe in near-Earth or more distant, geostationary orbits. Moreover, because climatic variations on time scales of months and seasons are part of large scale, global phenomena (Fig. 2), a variety of regional impacts are possible, including the simultaneous occurrence of floods at one location and drought at another. Thus, no single response strategy can apply to all regions, as was the case for ozone depletion.

The study of climate variability on these medium-term scales involves economic as well as natural science issues. How reliable need long-term forecasts be, and how far in advance need they be made to be useful to agriculture and other human interests? What are the implications for insurance and investment decisions, of both successes and failures? Because of these challenging and very practical questions, seasonal-to-interannual forecasting provides a powerful test case in framing what we shall call an integrated global observing strategy.

How ready are we?

A recent study by the U.S. National Academy of Sciences cited seasonal-to-interannual climate prediction as a maturing field with high relevance to economic and other practical decisions. The Academy noted that scientists have now identified the fundamental science questions: Where does significant climate variability exist, and what are its patterns? What mechanisms underlie this variability, and how do they evolve across space and time? How predictable are such variations?

The Academy also noted that considerable progress has already been made. The largest contributor to global climate variability on seasonal-to-interannual time scales is the transfer of heat and other forms of energy between the atmosphere and the ocean. These exchanges operate on time scales of seasons to years, and are initially manifest as distinctive surface warmings of the tropical Pacific Ocean, known as *El*

Niño events, and associated changes in the global atmospheric circulation called the *Southern Oscillation* phenomena. Organized field studies of these climatic events over the last ten years have identified causes and effects, and scientists are now beginning to model and predict their occurrence up to one year in advance with some success. A system of instrumented buoys, moored in the open waters of the Pacific, is already in place, and made possible a four-to-six month advance warning of the 1997 El Niño event. A practical prediction system that links observations and models in regions affected by El Niño-- particularly the nations that bound the Pacific Ocean--has now been implemented.

Other steps have been taken to address seasonal-to-interannual climate change in middle- and high-latitude continental regions. The U.S. Weather Service has for some time striven to implement a long-range climate forecasting program for the U.S. Considerable investments have been made in the American Midwest, Canada, Europe, and many other locations worldwide to deploy measuring networks for systematic observation of the hydrologic regime, cloud cover, and radiation, all of which are critical elements of transient climate variability. Soil and vegetation processes are also very much involved in the exchange of energy, water, and carbon between the land and the atmosphere. Thus, regional information on soil moisture and plant conditions are also required if models are to project climate months or years in advance.

The need for multidisciplinary observations and analysis is well recognized by climatologists and the agencies that fund research. For purposes of weather and climate prediction, dedicated spacecraft are now making or will make observations that go far beyond the conventional meteorological suite of air temperature, pressure, moisture, and cloud-cover data. These include the temperature of the surface of the sea and the winds that blow across it; sea-surface topography and roughness; ocean circulation; and global precipitation, including all the rain that falls, unseen, on the oceans. To support the internationally-recognized research goals of the World Climate Research Program, multinational arrays of moored and drifting ocean buoys now provide continuous measurements of surface and sub-surface ocean conditions, and expendable sensors dropped from ships along commercial shipping lanes make systematic observations of ocean temperature as a function of depth. In parallel, a number of interactive ocean-atmosphere-land models are being developed around the world.

In view of these advances, the NAS recommended that the next step toward practical seasonal-to-interannual climate prediction should be a project to forecast the occurrence and regional impacts of future El Niño events, as a way of demonstrating the benefits and practical limitations of such predictions. To do this, researchers will attempt to provide both broad predictions of global scale phenomena and specific advisories regarding probable impacts and possible adaptation strategies in regions such as tropical South America or the western U.S. To realize the full value of predictions, the project will need to interact with the agricultural community by recommending appropriate planting strategies, and with other sectors by advising on natural hazard preparation and mitigation. Needless to say, such a project reaches well beyond conventional scientific research and requires the active participation of relevant national agencies and of local and regional decision-makers.

An international Institute for ENSO predictions

A major step toward a practical application of the capability to predict and respond to El Niño events was the recent formation of the International Research Institute for Climate Prediction, involving nations of the Americas, the South Pacific, and the Pacific Rim of Asia. The Institute will coordinate modeling and prediction, develop impact assessments and deliver basic information to shape national responses to seasonal and interannual climate change. The new entity is unique in linking together the efforts of nations in different parts of the world, in bridging the gap between the natural and social sciences, and in bringing scientists and decision-makers together. A part of the plan, now awaiting Congressional approval, is to

transform the ocean observation networks installed in the Pacific for the pilot phase of the project into an ongoing international operational facility for observation and global prediction.

The challenge is to demonstrate a capability to collect, analyze, and employ data for the evaluation of expected impacts on regional scales. Reliable predictions of El Niño events and other transient variations, seasons to a year in advance, are of unquestioned economic and societal value, and their successful realization will provide strong incentives for nations to support the implementation of a shared, international system to produce them on a regular basis.

THE NEXT CHALLENGE: LONG-TERM CLIMATE CHANGES

Seasonal-to-interannual climate prediction adds a new suite of ocean and other observations to the on-going data requirements for today's shorter, five-day weather forecasts. The next step--climate prediction covering a decade or longer--presents different and more difficult challenges. Global observations of an even wider range of variables are required and, because of the time scales of the processes involved, many of these observations will need to be sustained over a long period. At the same time the benefits, while the science is being developed, are more diffuse and remote. Yet the impacts of significant long-term climate change on the global economy and the human condition can be profound: the Earth is the only known habitable planet and our ultimate interest is to keep it so.

Understanding climate change on times scales of decades requires a correspondingly long commitment to consistent and well-calibrated data records. Plans for NASA's Earth Observing System (EOS), the largest element of the USGCRP, were based on the view of the scientific community that a minimum of fifteen years of continuous monitoring would be needed to identify meaningful climate trends and to separate human effects from changes of natural origin. In fact, some of the key parameters that control the Earth's climate will need to be monitored for an indefinite period, in the same way that population is counted or economic indicators are monitored, year after year, today. Other observations are required intermittently or for only a few years to uncover the mechanisms that underpin climate changes.

The data to be collected by EOS and other observing programs for the goal of projecting long-term climate change include measurements of every major component of the Earth system: global cloud cover; the amount of dust and other solid particles (or *aerosols*) in the atmosphere (Fig. 3); the radiation received from the Sun and that emitted by the atmosphere and the surface of the Earth; the temperature of the sea surface and the circulation of the oceans; changes in sea-level, around the world; the extent and thickness of ice sheets and glaciers; the amount and thickness of floating sea-ice; the chemical composition of the lower and upper atmosphere, including the fraction of "greenhouse" gases; and significant changes in vegetation and other measures of land cover (Fig. 4). These data must be assimilated into computer-generated representations, or *models*, of global climate. Modelers must identify and weigh a wide variety of processes that generate or regulate climate variations on all time scales.

The challenges involved

Designing an observing system suitable for the study and prediction of long-term climate changes is a daunting task, from both scientific and technical perspectives. Among the more difficult challenges are the choices that need be made at the outset. Since we cannot afford to monitor every relevant or suggestive parameter, which are the more important, how can they best be measured, and what are the relative priorities among them? Greater yet may be the challenge of securing and maintaining financial, policy, and organizational commitments to this task when governments expect relatively fast and identifiable returns from their investment in research. How can a costly scientific undertaking sustain the financial support of governments and popular interest, when it addresses time scales of decades to a century? How can it

expect the support of taxpayers and the private sector when its findings might lead to recommendations that mandate potentially costly and possibly controversial changes in human behavior?

A partial answer to these vexing questions of sustained commitment can be found in explaining global climate change projections in terms of impacts at the regional level. A 2°C rise in global mean temperature over 100 years (as estimated in the most recent, mid-range projections of the Intergovernmental Panel on Climate Change), is not likely to rank high among the concerns of the average citizen in this or any country. That such a change will result in a world-wide rise of half a meter in mean sea-level may pique, somewhat, the interest of the average person. But when translated into regional and local consequences--such as loss of beaches and hazards to shoreline assets, impacts on agriculture, reduced availability of fresh water from wells, an increase in disease vectors, and attendant impacts on quality of life--long term climate forecasts have a greater impact. If projections are sufficiently specific and reliable, impact assessments are possible for use in long term capital investment decisions and insurance planning.

The fact remains that scientists are as yet unable to specify, in more than general terms, the local impacts of long-term climate changes. Moreover, the obstacles to this long-sought goal are not so much the spatial resolution of today's numerical models (now typically a square, several hundred miles on a side) or the limitations of computing equipment, but what we don't know or simply omit about the basic physical, chemical, and biological processes that are involved. It is these basic unknowns that introduce the principal uncertainties in model results. Learning more about each of them is a priority objective of modern climate change research.

Most people, not surprisingly, have only limited understanding of either the strengths or the uncertainties of models on which climate projections are based. This may be one reason why so many remain unconvinced of the likelihood of increased global greenhouse warming due to human activity. An effective means to increase public confidence and build support for a long-term climate observing system is to demonstrate consistently successful, verifiable forecasts of shorter-term, seasonal-to-interannual climate changes. In the process, scientists will gain confidence in their ability to discriminate between competing causes of climate change, and skill in collecting and utilizing the vast amount of data required. Decision-makers will gain a better appreciation of the capabilities and limitations of longer-term climate predictions, as well as their demonstrated practical value.

THE FUTURE CHALLENGE: ECOSYSTEM RESEARCH

Only the bare beginnings have been made to develop an observational strategy for assessing significant global changes in the behavior of living things and ecosystems. To date, most attention has focused on measuring and modeling global sources and sinks of carbon dioxide. This is in part because of the fundamental importance of carbon dioxide as a primary cause of global warming. It is also because the composition of the atmosphere is relatively easy to monitor, compared to other possible indicators of ecosystem change.

The biological world is intrinsically complex at almost any spatial scale, and our customary ecological indicators, such as plant productivity or microbial activity, are most often highly site-specific. What happens in a field of corn may have little relevance to an adjoining forest, swamp, or pond. Moreover, what applies in a meter-size plot within any of these sites may not describe the particulars in an adjacent sample of similar size. Thus, the act of averaging or generalizing--so necessary in models that combine data from disparate sources--presents a particularly difficult challenge to ecologists. The *aggregation* of plot-scale observations into meaningful regional and global geographic information is a major scientific and data management challenge, as is the opposite step, the *disaggregation* of large-scale estimates of predicted changes, such as area-averaged rainfall, into realistic values pertinent to smaller scales.

Improving our understanding of natural ecosystems, including the impacts of our own activities, presents both challenges and opportunities for the construction of land and marine observing systems. Human impacts on the natural world are often the source of controversy. The act of assessing information regarding these impacts--such as those that follow the clear-cutting of forests or the draining of wetlands--can pit the immediate users of natural resources against those people or institutions that are more concerned with the long-term health of the natural environment. Likewise, nations may be leery about the wide availability of detailed images of their own territory from space, for various political, military, and economic reasons.

The very utility of remotely-sensed land and marine observations can also complicate the development of an international strategy for observing natural ecosystems. The commercial value of data that relate, for example, to the projected value of crops or next year's yield of fisheries, can hinder the full and open exchange of information for research and other public purposes. At the same time, our experiences with visual images made from space suggest that a marketable product can also create opportunities.

Commercial firms are important consumers of data from the U.S.- built Landsat and the French SPOT Earth-imaging satellites, and a "value-added" data processing industry has now arisen to tailor the raw images from spacecraft to suit the unique needs of many different applications. The increasing demand for remotely-sensed images of various features of the Earth's surface comes at a time when the costs of spacecraft and instruments are declining, such that private ventures are now being proposed to provide high-resolution satellite imaging systems and services on a commercial basis. Field studies of terrestrial ecosystems lack a commensurate commercial value that would elicit similar interest from the private sector, and programs to provide these data have developed on a more piecemeal basis through governmental sponsorship.

AN INTEGRATED GLOBAL OBSERVING STRATEGY

Within the U.S., federally-supported research activities that bear upon the science of the environment are coordinated by the interagency U.S. Global Change Research Program, linking the efforts of twelve agencies and institutions. Similar initiatives have come into being in almost all other developed nations. The European Union is endeavoring to coordinate the environmental research activities of its twelve member states: Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, and the United Kingdom, combining their scientific and economic abilities. Japan has recently launched a comprehensive global change initiative by combining research, observations (on the surface and from space) and simulations to develop high-resolution models. The World Climate Research Program, the International Geosphere Biosphere Program, and the International Human Dimensions Program are internationally-coordinated initiatives that address the fundamental science of major environmental problems, including, but not limited to, global climate change. Through these programs, international, cooperative research institutes have been or are being established in the Americas, Asia and Africa. The Intergovernmental Panel on Climate Change, sponsored jointly by the World Meteorological Organization and the United Nations Environment Programme (UNEP) conducts international assessments of what is known about potential future climate changes and their probable impacts, and possible policy options to respond to them.

These internationally organized research activities all speak to the facts that (1) the major environmental problems of today transcend national boundaries, and (2) the study of global-Earth system phenomena and processes requires international collaboration. These statements also apply to the observational systems that are necessary to monitor significant changes and to supply the diverse data needed to understand them.

Elements now in place or underway

The World Weather Watch, sponsored by the World Meteorological Organization, is the most mature international cooperative effort of this kind, but it is limited to meteorology. Other existing mechanisms that reach beyond the domain of weather include the Committee on Earth Observation Satellites established by the Group of Seven (G-7) major industrial democracies (Canada, France, Germany, Italy, Japan, United Kingdom, and U.S.). Several UN organizations and the non-governmental International Council of Scientific Unions have jointly sponsored three proposed international observing system initiatives that are directed, respectively, at global climate, the world oceans, and terrestrial phenomena and ecosystems.

These are all first steps, however, and several important elements are still lacking. One is adequate integration of both space-based and in situ observations in the three domains, for there is no internationally-agreed-upon mechanism to rank the relative priorities of various measurements. A second missing link is an international forum or other review process through which national agencies can coordinate their own activities to meet global needs: to ensure that observational programs--in space or from the ground-- will provide uniform and continuous data for agreed-upon science priorities. In this sense, the present status of global observing systems is not unlike the case of stratospheric ozone: an international agreement to control substances that deplete ozone without an international strategy to monitor the effect of the treaty.

Many of the elements of an integrated Global Observing Strategy exist today in terms of on-going but separate observing programs and new initiatives. Combined world expenditures on non-military, space-based research observations of the environment will total approximately \$15 billion for the decade of the 1990s, and twice that amount if one includes operational monitoring systems, such as the World Weather Watch. Much of the research investment will go into the International Earth Observing System--the first multi-national satellite array that is designed to address the multi-disciplinary nature of most environmental questions.

The International Earth Observing System will combine six major satellite programs conducted by the U.S., Japan, and European nations. Included are the U.S. Earth Observing System and Polar Operational Environmental Satellite program; Japan's Advanced Earth Observing System; the joint Japan/U.S. Tropical Rainfall Measuring Mission; a joint French/U.S. mission that measures ocean height and surface characteristics; and the European Space Agency's Environmental Satellite mission. Still, the combination of systems and satellites is only loosely coordinated and there are no binding agreements to ensure that the flow of data from any of them will not be interrupted. The first series of spacecraft will be launched within a five-year period beginning this year, in 1997. The spacefaring nations have not yet coordinated their plans for continuation beyond 2002, although given the long lead times involved in planning and implementing space missions, it is time to do so.

The need for an underlying strategy

International discussions have already been initiated to define an Integrated Global Observing Strategy: the foundation and *raison d'être* for activities such as the International Earth Observing System effort. The initial impetus for this development came in a 1994 report of Japan's Space Activities Commission, which called for an international Global Earth Observation System to be deployed early in the new century. The Japanese suggestion kindled a U.S. effort that resulted in a white paper from the President's Office of Science and Technology Policy, proposing guidelines for international discussion, and interagency consultations within the U.S. on the subject. European organizations such as the European Space Agency,

the European Meteorological Satellite Commission, and the European Union have shown a growing interest in developing such a strategy.

An Integrated Global Observing Strategy is the first requisite for a global Earth observing system: an agreed-upon definition of what needs to be monitored, and why, how, and in what order. The word "Integrated" carries several intended meanings. One is the essential international character of the enterprise: the need to tie together the efforts and research investments of many nations, with the broadest possible participation. The obvious need to share costs is but one of the reasons to make such a system international. Another is that the readiness of any nation to accept science findings or recommendations regarding the environment depends on the level of that country's involvement in the processes of data acquisition and analysis.

"Integrated" also implies the combination and coordination of space-based and ground-based measurements, as is required in virtually every area of environmental research, in that each of the two sources of information complements and helps validate the other. This is not a simple matter, as ground-based facilities are owned by a great many national operators and constantly evolving, some degrading, some improving. A third intended meaning is the linking of measurement technology with scientific analysis, to reap the greatest information return from what is observed and monitored.

"Strategy" is another carefully chosen word. It entails matching what is needed in the way of observations with existing and planned capabilities. It implies the need for a forum in which national and international agencies would coordinate and tailor their own commitments to meet a global goal. Defining a "strategy" instead of a "system" implies a more flexible and pragmatic approach, as opposed to a fixed and soon-dated plan for an ideal observing system. A "strategy" starts with what is now in hand, progressing toward an end that can be adjusted as new knowledge emerges.

Action on a few key arenas of observation where early success is achievable, such as stratospheric ozone monitoring, would be an excellent first step, and indeed, discussion of such actions is now underway in the context of the G-7-sponsored Committee on Earth Observing Satellites.

CONCLUDING THOUGHTS

Most people who deal with climate or other environmental issues would agree with the need to maintain a continuous watch on the planet's vital signs. It is equally clear that the observations that are required to detect significant global changes are far more diverse than those now being made for day-to-day weather forecasts, and more continuous and systematic than those which come our way through the chance discoveries of experimental spacecraft missions and field research.

A number of obvious impediments must be overcome to create a lasting global observing system. First, public commitment and government support need to be secured and then sustained over the periods necessary to identify meaningful trends, which are often measured in decades. Moreover, unlike building a highway system, or finding a cure for a dread disease, there is no clear-cut "end point" to the endeavor: to separate trends from noise, and to monitor subsequent changes, some key observations must keep going, and going, and going. In the meantime, political parties in power will change, market indices will rise and fall, and domestic and international priorities may change in response to national or geopolitical events. Yet, the example of international weather data exchange has demonstrated that cooperative efforts can indeed be sustained, uninterrupted, through good times and bad, including periods of international confrontation.

A second obstacle is that, while the raw data acquired by a properly designed observing system are not

themselves controversial, the issues to which they pertain almost always are, as could be their selection and interpretation. In matters that touch our lives, healthy scientific debate can be lifted out of context to fuel public dissent. Strategies for coping with environmental changes involve economic choices, tensions between long-term good and short-term gain, and frictions between perceived winners and losers. While the vagaries of day-to-day weather have come to be accepted as random events, at least some longer-term climatic variations may not be. The human dimension is unavoidable--for our own actions can indeed provoke environmental changes on a global scale. To some nations or private interests, the prospect of global environmental monitoring may seem invasive and potentially provocative.

In this domain of science, there is probably no easy road to public confidence, and perhaps no crucial experiment or definitive demonstration of worth that will convince everyone, everywhere. To most thinking people, however, the way toward more prudent environmental decisions and a clearer view of what lies ahead is through more systematic documentation of the general state of the planet on which we live.

Why strive for an Integrated Observing System?

The early Greek philosophers had a fair understanding of rain, wind, and tides, and for centuries scientists have recorded natural and human-induced changes in their local surroundings. Ours is the first generation with tools to perceive the planetary dimensions of environmental change, and the first with the computational means to interpret and predict these changes on a global scale. The last thirty years have demonstrated the value of remote sensing and the feasibility and potential of international collaboration in matters of global environmental change. Beginning with the TIROS weather satellites in the 1960s, the first Landsat spacecraft in 1972, and extending through to International Earth Observing System platforms that are currently under development, nations have demonstrated a willingness to support and carry out the comprehensive observations needed to study climate and other significant changes in the global environment. It seems to us that the largest remaining challenges are no longer technical but organizational in nature.

Anticipated trends in population growth and corresponding increases in the demand for energy and other natural resources imply that the next generation and those following will need to make prudent decisions to maintain and improve the quality of human life. The formulation of well-informed policy recommendations will depend on reliable answers to questions of the sort that are all too familiar to us today: What is changing, and why? To what degree are these normal, natural variations? What are the economic and social consequences? How certain are these purported or expected trends, and with what assurance are the practical projections made? Can effective response strategies be conceived, and what are their costs?

It is our obligation, now, to systematically monitor the variables that reflect the habitability of our planet and put in place the scientific infrastructure that will make the environmental questions of the next twenty or one hundred years more answerable. An archive of ongoing records, starting now, can also identify our own inadvertent marks on the planet, and help in distinguishing serious problems from false alarms. We owe the next generation the scientific means to think more clearly about its global environment.

Reviewers

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**Statement of U.S. Energy Secretary Spencer Abraham
American Academy in Berlin
September 17, 2003**

Let me begin by saying how grateful I am to Gary Smith and the American Academy in Berlin for hosting today's event.

Although I have previously visited Germany, this is the first opportunity I have had to visit Berlin, and it is a great pleasure to be here. I very much appreciate the hospitality that has been afforded me, and I appreciate your giving me this forum to discuss an issue that is of great concern to the people of Europe and the United States - global climate change.

As the Secretary of Energy, I am charged with implementing many of my nation's climate initiatives, and I am very proud of what we are doing. But it is my belief that U.S. policy on climate change is not sufficiently understood by large segments of the public, particularly here in Europe. That is why I came here today to share with you some key features of U.S. policy and to describe some specifics about what we are doing to reduce greenhouse gas emissions.

Let me be clear at the outset. I am not here to debate the wisdom of the Kyoto Protocol.

The United States is neither ashamed of its position on Kyoto nor indifferent to the challenges of climate change. The United States is investing billions of dollars to address these challenges, and we are a signatory to the United Nations Framework Convention on Climate Change, which has the ultimate goal of stabilizing greenhouse gas concentrations in the atmosphere.

As we have contemplated the U.N. Convention's attainment, it has become clear that all of its signatories face one hard and clear choice. Either dramatic greenhouse gas reductions will come at the expense of economic growth and improved living standards, or breakthrough energy technologies that change the game entirely will allow us to reduce emissions while, at the same time, we maintain economic growth and improve the world's standard of living.

We believe the second course is the only acceptable, cost-effective option, and that course is guiding our climate change policy response. For that reason, and because we also believe it is unreasonable to expect any country that possesses abundant supplies of inexpensive fossil fuels to forgo their use, President Bush initiated a Cabinet-level review to identify new approaches to climate change policy soon after taking office. The policies, he said, must:

- be science-based;
- encourage scientific and technological breakthroughs;
- harness the power of markets;
- encourage global participation;
- ensure continued economic growth;

- and be consistent with the long-term goal of stabilizing greenhouse gas concentrations in the atmosphere.

Within these parameters, the Administration has developed an ambitious approach to climate change that rests on three main pillars – technology, science, and international cooperation.

In February 2002, President Bush announced the creation of a Cabinet-level Committee on Climate Change Science and Technology Integration, co-chaired by Secretary of Commerce Don Evans and me. The Committee's work is divided into two project lines, with the Department of Commerce leading the climate change science effort and the Department of Energy leading the technology research effort. Both project lines are interconnected and complementary.

President Bush described this best when he said, "Our actions should be measured as we learn more from science and build on it. ... We will act, learn, and act again, adjusting our approaches as science advances and technology evolves. Our administration will be creative."

Perhaps as important, interwoven into our climate science and technology programs is international collaboration. Because global climate change is a worldwide issue, we are committed to helping bring about a truly global response to this long-term challenge.

Well-designed international partnerships allow participants to leverage resources and accelerate the development and commercialization of new technologies. These collaborations can be on a large scale or a small scale, but we feel they are especially relevant to the pursuit of new technology.

Now that I have briefly outlined the structure and focus of our climate change efforts, I'd like to report on our progress.

The United States recognizes that climate change is a century-long challenge, but one that we must begin to address now. In response, the Administration has developed a continuum of short-, mid-, and long-term steps consistent with a 100-year timeline.

Our first task is to slow the growth of U.S. greenhouse gas emissions.

In February 2002, President Bush announced an ambitious national goal to reduce by 18 percent over the next 10 years the greenhouse gas intensity, or emissions per unit of economic output, of the U.S. economy. Achieving this 18 percent reduction goal will result in the United States reducing the 183 metric tons of greenhouse emissions per million dollars GDP that we emit today to 151 metric tons per million dollars GDP in 2012. And meeting this commitment will achieve 100 million metric tons of reduced emissions in 2012 alone, with more than 500 million metric tons in cumulative carbon-equivalent emissions reductions through 2012 – an amount equal to taking 70 million cars off the road.

A goal of this magnitude will require an effort well beyond business as usual, but it is a goal that works *with* economic growth, instead of dampening it. That is important because, as experience has shown, vigorous and sustained economic growth is critical for new investment in energy efficiency, cutting-edge technologies, and a cleaner environment.

To support his 10-year goal, the Bush Administration is engaging in a variety of approaches.

One example is our Climate VISION program, a presidential initiative launched by the Energy Department in February 2003 that is designed to reduce the growth of greenhouse gas emissions by energy-intensive industrial sectors. Participants in the program account for between 40 and 50 percent of U.S. greenhouse gas emissions.

These sectors have already agreed to meet specific commitments to reduce their industry emissions and to use their successes to help enable those in other sectors, such as the commercial and residential sectors, to reduce their greenhouse gas impacts. The Climate VISION program works with industry trade associations to accelerate the transition to practices, technologies, and processes that are cleaner, more efficient, and capable of capturing or sequestering greenhouse gases. The U.S. Environmental Protection Agency's Climate Leaders program is another voluntary program with similar goals for individual companies and other entities.

On another front, in February 2002, the President directed the Department of Energy and other federal agencies to improve the accuracy, reliability, and verifiability of the voluntary greenhouse gas-reporting program that was established in 1994. We currently have about 220 annual participants in the program who have undertaken significant efforts to reduce or sequester greenhouse gases. These include businesses, farmers, and federal, state and local governments. By enhancing the registry, participation will increase as businesses and governments become more confident that their actions will be more accurately recorded, removing the concern that voluntary actions taken now might not be recognized under any future climate policy.

We believe these approaches will be effective because they allow consumers, businesses, and industries to make flexible decisions rather than being forced to implement government-mandated actions or to meet government-imposed targets. However, as was stated in the Bush Administration's 2002 Climate Change Strategy, if by 2012, "our progress is not sufficient, and sound science justifies further action, the United States will respond with additional measures that may include a broad, market-based program, as well as additional incentives and voluntary measures designed to accelerate technology development and deployment."

The Bush Administration is also implementing an array of federal policy programs to support greenhouse gas reductions. These include tax credits for renewable energy like solar, geothermal and wind sources, and energy efficient technologies like hybrid and fuel cell vehicles and cogeneration. These also include tougher fuel economy standards for motor vehicles, "Energy Star" labeling to encourage more-efficient home appliances, and the "Energy Savers" program, which provides energy efficiency tips to homeowners.

We have also made significant progress promoting conservation and increased energy efficiency, and expanding the use of clean, renewable energy sources. Indeed, this year the Energy Department made a funding request for energy efficiency and renewable energy programs that exceed funding levels enacted by Congress any year during the last two decades.

We are proud of our record, and we believe that with all of these initiatives we can achieve our short-term goals. But, of course, that only covers the short run. So, in addition to the actions listed above, we have also launched an aggressive effort to lay the foundations for mid- and long-term advances that will spring from a greater understanding of the climate, how it is changing, and how it is being affected by various factors.

The truth is, we know little about the scope, magnitude, timing, or regional distribution of future climate change or its potential impact on society. Our goal is to produce useful scientific information on climate change that will bring greater focus to our research, and help us formulate and implement the most effective future technological solutions.

The U.S. National Research Council, an arm of the National Academies of Science, noted that reducing the significant uncertainties in projections of future climate change requires finding answers to a number of fundamental scientific questions relating to the growing concentration of greenhouse gases in the atmosphere and the behavior of the climate system. The Council's recommendations were instrumental in the design of the President's climate strategy and the recently released 10-year Cabinet-level plan to accelerate climate science.

Consistent with that plan, President Bush requested \$1.7 billion in fiscal year 2004 for our overall Climate Change Science Program.

The United States also supports better environmental observation systems, especially in developing countries where they are needed most. One such effort is the Earth Observation Summit, which was recently hosted by the United States and attended by more than 30 nations.

The goal of the Summit is to establish an international, wide-ranging, and integrated Earth observation system, which will be a crucial element in advancing our understanding of climate change. Better observation systems will create more accurate climate models, improve our knowledge of the behavior of carbon and aerosols emitted into the atmosphere, and develop strategies for carbon sequestration. They will also help in the formulation of sound, science-based environmental policies, and allow us to measure progress and assess the effectiveness of our policies.

I know that some have characterized our emphasis on science programs as a delaying tactic, a way to avoid doing anything until every scientific question is settled. But nothing could be further from the truth. For in addition to our initial 10-year plan to reduce carbon intensity, we have also launched an array of ambitious research projects to develop new technologies designed to help us attain spectacular reductions in greenhouse gas levels.

Last November, an article in the prestigious journal *Science* examined the full range of existing energy technologies. The authors determined that existing energy technologies, even

with substantial enhancements, could not meet the world's future appetite for energy and simultaneously deliver the emission reductions necessary to stabilize the concentration of greenhouse gases in the atmosphere. Doing so, the authors asserted, will require leapfrogging to the kinds of technologies that will transform current energy systems.

They concluded that stabilizing the climate "at the very least, requires political will, targeted research and development, and international cooperation. Most of all, it requires the recognition that, although regulation can play a role, the fossil fuel greenhouse effect is an energy problem that cannot be simply regulated away."

"Let us be very clear about the implications of this. We can sign treaties that call for reductions in greenhouse gas emissions. We can set targets and timetables for reducing emissions by certain percentages by certain dates. But, as I have said at the outset, unless we are prepared to accept the severe economic consequences of punitive taxes on high-emitting agriculture and forestry practices and energy-derived carbon emissions, treaties, timetables, and targets alone won't be able to bring about sufficient greenhouse gas reductions.

We will also need to develop the revolutionary technologies to make these reductions happen. That means creating the kinds of technologies that do not simply refine current energy systems, but actually transform the way we produce and consume energy.

When those technologies are developed, we will all exceed our targets. If they are not developed, we will all fail.

The Bush Administration's Climate Change Technology Program, led by the Energy Department, is hard at work developing those technologies. Some will take years to perfect, others decades. But we are determined to make them a reality. As noted, we are putting billions of dollars into this effort, and more than a dozen federal agencies – working with partners in academia, the private sector, and other nations – are investing countless hours on them.

Let me highlight a few of the transformational technologies on which we are working.

More than half of the electricity generated in America today comes from coal. Under our new Clean Coal Technology Initiative, the Energy Department is exploring a new generation of energy processes that can sharply reduce emissions of air pollutants and greenhouse gases compared with older coal-burning systems.

This work includes a broad spectrum of research and large-scale projects to meet today's most pressing environmental challenges, including climate change.

A related area of research is carbon sequestration. As you know, carbon sequestration involves removing carbon dioxide from emissions streams or the atmosphere and permanently storing it in deep underground formations, such as depleted oil and gas reservoirs, unmineable coal seams, and deep saline aquifers.

Carbon sequestration research and technology is a top priority for the United States because it acknowledges a simple and indisputable fact: fossil fuels will continue for the foreseeable future to be the world's most reliable and lowest-cost energy resources.

The International Energy Agency projects a 50 percent increase in worldwide coal use for electricity generation over the next quarter century, most of it in developing countries such as China and India, which have large coal reserves.

The United States is currently working with private sector partners on 65 carbon sequestration projects around the country, and we have increased our carbon sequestration budget by 60 percent.

International cooperation in carbon sequestration research is also a key aspect of our approach. The Carbon Sequestration Leadership Forum, a Bush Administration initiative, is a multilateral effort to advance technologies that capture and store carbon emissions.

The Forum was inaugurated formally at a ministerial meeting in June, during which 13 coal producing and consuming nations and the European Union signed an international charter establishing a framework for cooperative research and development.

The Forum's partners will also be invited to participate in our \$1 billion FutureGen project – an initiative to design and construct the first emission-free coal-fired power plant.

FutureGen will be one of the boldest steps our nation takes toward a pollution-free energy future. Virtually every aspect of the plant will be based on cutting-edge technology. It will be a living prototype, testing the latest technologies to generate electricity, produce hydrogen, and sequester greenhouse gas emissions from coal.

FutureGen will help lead to the development of clean fossil fuel power plants all across the world. It will allow this abundant and economical fuel source to continue producing energy without its traditional environmental side-effects.

These are exciting and important projects, but we are also looking beyond traditional energy sources. Today technology is transforming our lives like never before, and it is changing the way we think about energy.

President Bush recognized the promise of transformational technologies when he announced his groundbreaking plan to change our nation's energy future to one that utilizes the most abundant element in the universe – hydrogen. Over the next five years, the United States has pledged \$1.7 billion to fund the ambitious FreedomCAR and Hydrogen Fuel Initiative to develop emission-free automotive operating systems that run on hydrogen.

Hydrogen represents one of the most attractive options to meet both our energy and environmental goals. It has a high energy content, it produces no pollution when used to create energy in fuel cells, and it can be produced from a number of different sources, including renewable resources, fossil fuels, and nuclear energy.

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The United States has begun to reach out to our international partners to advance global cooperation in hydrogen research. Last June I joined with European Union Commissioner for Research Phillipe Busquin in Brussels to sign an agreement that lays out the framework within which we will collaborate on hydrogen research. This agreement will help both the United States and the European Union leverage their efforts to bring about a hydrogen-based economy.

In addition, last spring at the International Energy Agency, and again in June at Brussels, I called for the establishment of an International Partnership for the Hydrogen Economy to coordinate multinational research and development programs to accelerate the transition to a global hydrogen economy.

The public-private collaborations envisioned under the Partnership will address the technological, financial, and institutional barriers to hydrogen and develop internationally recognized technology standards to speed market penetration of new hydrogen-based technologies. Fifteen potential international partners, including the European Union, France, Germany, Italy, and the United Kingdom, have been identified, and a ministerial meeting is planned for November to get the Partnership under way.

In addition to hydrogen, we are also looking at bio-energy and bio-based industrial processes, which have the potential to reduce greenhouse gas emissions and promote sustainable development. As we are learning, scientific advances are making it possible to convert biomass to petroleum substitutes. These substitutes could not only reduce dependence on oil, but also reduce greenhouse gas emissions.

We also have to recognize nuclear energy as a clean energy choice, both in the near- and longer-term. The Generation IV program, which includes 11 international partners, is working on new fission reactor designs that will be safer, more economical and secure, and able to produce new products, such as hydrogen.

And earlier this year President Bush announced that the United States would rejoin the International Thermonuclear Experimental Reactor, a project to develop nuclear fusion as a future energy source. Although the technical hurdles of fusion energy are high, we feel the promise of this technology is simply too great to ignore.

Taken together, these technology initiatives, if successful, add up to what can only be described as a long-term revolution in our energy systems. Not only will these technologies put us on a long-term path to stabilizing atmospheric greenhouse gas concentrations, they will also ensure secure, reliable, affordable, and clean energy to power economic growth and development across the globe.

Needless to say, these initiatives cost money, and we have backed them up with significant resources. The Bush Administration's fiscal year 2004 climate change spending request totals more than \$4.3 billion a year. Moreover, the new Energy Department initiatives I've discussed will constitute more than \$5 billion in research activities over the next five to 10 years.

I am proud of the level of this commitment and I feel it places the United States in a very strong comparative position to the rest of the world in terms of climate technology investment.

As I noted, we believe that international partnerships are integral to our success.

In addition to those I have previously mentioned, I would be remiss if I failed to include our partnerships with key industrial and developing countries on advanced energy and greenhouse sequestration technologies, climate monitoring, climate modeling, scientific research, Earth observation systems, and more.

The United States has agreements with countries representing more than 70 percent of global greenhouse gas emissions. These include large industrial countries such as Russia and Japan, and some of the largest emitters of greenhouse gases in the developing world, such as China and India. Our emphasis on technology development and transfer will help these countries plan for a cleaner, more efficient energy future.

Through our climate change partnerships and other arrangements, such as the Clean Energy Initiative, which grew out of last year's World Summit on Sustainable Development in Johannesburg, we are working with our international partners to strengthen capacities for scaling up and commercializing clean energy technologies that provide a range of public benefits.

The United States also is working through the United Nations' Global Environmental Facility to support the transfer of advanced energy and sequestration technologies to the developing world. Last year we supported a 16 percent increase in funding of the Global Environmental Facility over the next four-year replenishment period.

Together with our international partners, we are establishing policy and scientific and technical frameworks for addressing climate change in a cooperative way, and we feel such multilateral efforts will be extremely productive.

The U.S. efforts on climate change I have described today represent a very different approach to a very vexing challenge. But I am confident it is an approach that offers the best hope to find cost-effective solutions to this long-term challenge. Because current technologies cannot lead to the desired result, irrespective of any regime of targets, we strongly believe that to get the job done we will need transformational energy technologies, similar in scope to the discovery of electricity or the development of the automobile. Without these technologies, no matter how good our intentions, we cannot achieve our environmental goals except by economic stagnation.

As I have said, it is wrong to expect nations – especially developing nations – to accept lower standards of living and curtailed economic development, just as it is impractical to expect that any nation will not take advantage of abundant domestic energy resources to power their economies. It is better, therefore, that we work together to develop new technologies that advance all our economies and preserve the world's environment.

Fifty years ago, no one could have guessed how technology would transform the way we live today. Computers, genomics, nanotechnology, space travel, and other technical marvels were hardly imaginable a century ago. But mankind developed these things. And it is in our nature that we continue to develop new technologies to advance civilization.

The challenges we face are significant. But working together, we are capable of developing and perfecting the new technologies that will transform the way our children and grandchildren and all future generations live.

Together, we can and will perfect the technology of carbon sequestration. We can and will transform our economies from carbon-based to hydrogen-based. And we can and will restrain the emission of greenhouse gases so we bestow a healthy planet on future generations.

These goals are greater than any differences between us, and they are goals we must all work together to achieve.

Thank you.

CCTP IWG 9/25 presentation

CEQ
446 PC

Cooney, Phil

From: Conover, David [David.Conover@hq.doe.gov]
Sent: Tuesday, September 23, 2003 6:25 PM
To: Sam Bodman (E-mail); Card, Robert; Connaughton, James; Olsen, Kathie L.; Marcus Peacock (E-mail); James R. Mahoney Ph. D. (E-mail)
Cc: Cooney, Phil
Subject: CCTP IWG 9/25 presentation

} (B)(5)

Dave Conover
Director, Climate Change Technology Program
US DOE
202-586-3994 (voice)
240-381-6506 (wireless)
202-586-0092 (fax)

<<IWG 092503 EPL.ppt>>

004332

9/23/2003

CEQ 005289

1346_f_yfasi003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:"Marlay, Robert" <Robert.Marlay@hq.doe.gov> ("Marlay, Robert"
<Robert.Marlay@hq.doe.gov> [UNKNOWN])

CREATION DATE/TIME:23-SEP-2003 20:07:24.00

SUBJECT:: CCTP Working Group Chairs Mtg, Friday, 10:00 - 12:00 Noon

TO:"Ron Birk (E-mail)" <rbirk@hq.nasa.gov> ("Ron Birk (E-mail)" <rbirk@hq.nasa.gov>
[UNKNOWN])
READ:UNKNOWN

TO:"Marcus, Gail" <GAIL.MARCUS@hq.doe.gov> ("Marcus, Gail" <GAIL.MARCUS@hq.doe.gov>
[UNKNOWN])
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TO:"Bill Hohenstein (E-mail)" <WHOHENST@OCE.USDA.GOV> ("Bill Hohenstein (E-mail)"
<WHOHENST@OCE.USDA.GOV> [UNKNOWN])
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TO:"Ginsberg, Mark" <Mark.Ginsberg@hq.doe.gov> ("Ginsberg, Mark"
<Mark.Ginsberg@hq.doe.gov> [UNKNOWN])
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TO:"Dina Kruger (E-mail)" <kruger.dina@epa.gov> ("Dina Kruger (E-mail)"
<kruger.dina@epa.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Patrinos, Ari" <Ari.Patrinos@science.doe.gov> ("Patrinos, Ari"
<Ari.Patrinos@science.doe.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Purvis, Frances" <Frances.Purvis@hq.doe.gov> ("Purvis, Frances"
<Frances.Purvis@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Stephen Seidel (E-mail)" <seidel.stephen@epa.gov> ("Stephen Seidel (E-mail)"
<seidel.stephen@epa.gov> [UNKNOWN])
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CC:"Baldwin, Sam" <Sam.Baldwin@hq.doe.gov> ("Baldwin, Sam" <Sam.Baldwin@hq.doe.gov>
[UNKNOWN])
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[UNKNOWN])
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<jhrubovcak@OCE.USDA.GOV> [UNKNOWN])
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CC:"Braitsch, Jay" <Jay.Braitsch@hq.doe.gov> ("Braitsch, Jay"
<Jay.Braitsch@hq.doe.gov> [UNKNOWN])

Page 1

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CEQ 005291

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READ:UNKNOWN

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CC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@Exchange [CEQ])
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CC:"Margaret Leinen (E-mail)" <Mleinen@nsf.gov> ("Margaret Leinen (E-mail)"
<Mleinen@nsf.gov> [UNKNOWN])
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<pemberton.john@epa.gov> [UNKNOWN])
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<joel.szabat@ost.dot.gov> [UNKNOWN])
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<James_Andrews@onr.navy.mil> [UNKNOWN])
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<Nita.Scotland@hq.doe.gov> [UNKNOWN])
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(E-mail)" <frederick.e.humphrey@nasa.gov> [UNKNOWN])
READ:UNKNOWN

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READ:UNKNOWN

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(E-mail)'" <John.Clarke@battelle.org> [UNKNOWN])
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READ:UNKNOWN

CC:"'koskbh@inel.gov'" <koskbh@inel.gov> ("'koskbh@inel.gov'" <koskbh@inel.gov> [UNKNOWN])
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<J.F.Clarke@pn1.gov> [UNKNOWN])
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CC:"Clarke, Leon" <Leon.Clarke@hq.doe.gov> ("Clarke, Leon" <Leon.Clarke@hq.doe.gov>
[UNKNOWN])
READ:UNKNOWN

CC:"Burt Koske (E-mail)" <koskbh@in1.gov> ("Burt Koske (E-mail)" <koskbh@in1.gov>
[UNKNOWN])
READ:UNKNOWN

CC:"Robert McNally (E-mail)" <robert_c._mcnally@opd.eop.gov> ("Robert McNally
(E-mail)" <robert_c._mcnally@opd.eop.gov> [UNKNOWN])
READ:UNKNOWN

CC:'Mary Cleave' <mcleave@hq.nasa.gov> ('Mary Cleave' <mcleave@hq.nasa.gov> [
UNKNOWN])
READ:UNKNOWN

CC:'Linda Lawson' <linda.lawson@ost.dot.gov> ('Linda Lawson'
<linda.lawson@ost.dot.gov> [UNKNOWN])
READ:UNKNOWN

CC:"John Beale (E-mail)" <beale.john@epa.gov> ("John Beale (E-mail)"
<beale.john@epa.gov> [UNKNOWN])
READ:UNKNOWN

CC:'James Mahoney' <James.R.Mahoney@noaa.gov> ('James Mahoney'
<James.R.Mahoney@noaa.gov> [UNKNOWN])
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UNKNOWN])
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<chris_kearney@ios.doi.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Conover, David" <David.Conover@hq.doe.gov> ("Conover, David"
<David.Conover@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TEXT:

CCTP WG Chairs:ÿ Reminder, sent on behalf of Dave Conover.ÿ Per mutual agreement of our last meeting, the next CCTP Working Group Chairs meeting will be held 10:00 - 12:00 Noon, Friday, September 26.ÿ The meeting will be at DOE's Forrestal Building, Room GH-019.ÿ Our Call-In number is 301-903-7071.ÿ At the meeting, Dave will review his briefing on CCTP status, planned for Thursday, at the Interagency Working Group (the so-called "Blue-Box" or "Deputies Group") of the Cabinet-level Committee on Climate Change Science and Technology Integration (CCCSTI).ÿ We also plan to discuss with the WG Chairs, next steps and future plans.ÿ Bobÿ 202-586-3949.ÿ

P.S.ÿ Assistance with entry into DOE will be provided by Nita Scotland (586-0070) and Frances Purvis (586-3900).

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1348_f_wko0j003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: PThorne@doc.gov (PThorne@doc.gov [UNKNOWN])

CREATION DATE/TIME: 24-SEP-2003 17:10:40.00

SUBJECT: Interagency working group on Climate Change science and Technology (IWGCCST) - Final Agenda for 9/25

TO: emsimmons@usaid.gov (emsimmons@usaid.gov [UNKNOWN])
READ: UNKNOWN

TO: steven_griles@ios.doi.gov (steven_griles@ios.doi.gov [UNKNOWN])
READ: UNKNOWN

TO: rcolwell@nsf.gov (rcolwell@nsf.gov [UNKNOWN])
READ: UNKNOWN

TO: Marcus Peacock (CN=Marcus Peacock/OU=OMB/O=EOP [OMB])
READ: UNKNOWN

TO: John H. Marburger (CN=John H. Marburger/OU=OSTP/O=EOP [OSTP])
READ: UNKNOWN

TO: James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@Exchange [CEQ])
READ: UNKNOWN

TO: eslater@osophs.dhhs.gov (eslater@osophs.dhhs.gov [UNKNOWN])
READ: UNKNOWN

TO: Kathie L. Olsen (CN=Kathie L. Olsen/OU=OSTP/O=EOP@Exchange [OSTP])
READ: UNKNOWN

TO: James Andrews@onr.navy.mil (James_Andrews@onr.navy.mil [UNKNOWN])
READ: UNKNOWN

TO: Robert.Card@hq.doe.gov (Robert.Card@hq.doe.gov [UNKNOWN])
READ: UNKNOWN

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TO: d.nelson@state.gov (d.nelson@state.gov [UNKNOWN])
READ: UNKNOWN

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TO: jrm@usda.gov (jrm@usda.gov [UNKNOWN])
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TO: gasrar@hq.nasa.gov (gasrar@hq.nasa.gov [UNKNOWN])
READ: UNKNOWN

TO: emil.frankel@ost.dot.gov (emil.frankel@ost.dot.gov [UNKNOWN])
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TO: conrad.c.lautenbacher@noaa.gov (conrad.c.lautenbacher@noaa.gov [UNKNOWN])
READ: UNKNOWN

CC: Sherron R. White (CN=Sherron R. White/OU=OMB/O=EOP [OMB])
READ: UNKNOWN

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CC:KWhitworth@doc.gov (KWhitworth@doc.gov [UNKNOWN])
READ:UNKNOWN

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READ:UNKNOWN

CC:barbara_diehl@ios.doi.gov (barbara_diehl@ios.doi.gov [UNKNOWN])
READ:UNKNOWN

CC:Roberta L. Conde (CN=Roberta L. Conde/OU=CEQ/O=EOP@Exchange [CEQ])
READ:UNKNOWN

CC:Pat.A.Simms@noaa.gov (Pat.A.Simms@noaa.gov [UNKNOWN])
READ:UNKNOWN

CC:Joy.Viars@hq.doe.gov (Joy.Viars@hq.doe.gov [UNKNOWN])
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CC:KBarrett@usaid.gov (KBarrett@usaid.gov [UNKNOWN])
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READ:UNKNOWN

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READ:UNKNOWN

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CC:ann_klee@ios.doi.gov (ann_klee@ios.doi.gov [UNKNOWN])
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TEXT:

Attached is the final agenda for tomorrow's IWGCCST meeting.

(See attached file: Agenda IWGCCST Mtng 25Sep03.doc)

- Agenda IWGCCST Mtng 25Sep03.doc===== ATTACHMENT 1

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CEQ
449 PC

Interagency Working Group on Climate Change Science and Technology

Thursday, September 25, 2003, 10:00 a.m. to 12:00 p.m.
Department of Commerce, Rm. 4830

Agenda

| Time | Item | Invited Discussion Lead |
|-------|--|------------------------------|
| 10:00 | Call to Order | Dep. Sec. Bodman, DOC |
| 10:05 | Legislative and Policy Update | Chairman Connaughton, CEQ |
| 10:20 | Budget Update | Assoc. Director Peacock, OMB |
| 10:30 | Earth Observation Summit Update | Ass't. Admin. Withee, NOAA |
| 10:45 | CCSP Update | Ass't. Sec. Mahoney, DOC |
| 11:05 | International Update | U/S Dobriansky, State |
| 11:20 | CCTP Deliverables | CCTP Dir. Conover, DOE |
| 11:45 | International Partnership for the Hydrogen Economy and International Energy Cooperation Task Force | Director OCCP Eule, DOE |
| 11:50 | Other Topics and General Discussion | Dep. Sec. Bodman, DOC |
| 12:00 | Adjourn | |

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11/20:

↳ Bl.

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} (B)(5)

000951

CEQ 005300

Hannegan, Bryan J.

From: Friedrichs, Mark [Mark.FRIEDRICHS@hq.doe.gov]
 Sent: Thursday, September 25, 2003 12:05 PM
 To: 'William Hohenstein'; Hannegan, Bryan J.; Cooney, Phil; Adele.Morris@do.treas.gov; kruger.joe@epa.gov; Harvey.Reid@epamail.epa.gov; Chris_Kearney@ios.doi.gov; Kathryn Bickel; James.R.Mahoney@noaa.gov; Christine_L_Dobridge@oa.eop.gov; Ted_Gayer@oa.eop.gov; poe@obpa.usda.gov; Farrell, Amy L.; McDonald, Christine A.; Krauss, Lori A.; james_andrews@onr.navy.mil; Karrigan.Bork@ost.dot.gov; reifsnyderda@state.gov; TalleyT@state.gov; TurekianVC@state.gov; watsonhl@state.gov
 Cc: Bowers, Mike; Strauss, Neal; Bryce Stokes; Jim Hrubovcak; Jim Reaves; Keith Collins; Marilyn Buford; Maurice Mausbach; Michael Poe; Richard Birdsey; joelbrow@nmsu.edu; Fraas, Arthur G.; Hunt, Lorraine D.; Noe, Paul R.; Eule, Stephen; Dobriansky, Larisa
 Subject: Issues for discussion at 3:30 mtg on 1605b general guidelines
 Importance: High
 Follow Up Flag: Follow up
 Flag Status: Flagged

All:

In order to facilitate the resolution of the remaining issues at this afternoon's meeting, I have drafted the attached list of issues for discussion. Of course, anyone will be free to raise -- before or during the meeting -- other issues for discussion.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Hope to see many of you at 3:30.

Mark Friedrichs

**Greenhouse Effects/1605(b)
 General Guidelines Review and Roll-Out**

-----Original Message-----

From: William Hohenstein [mailto:WHOHENST@mailoce.oce.usda.gov]

Sent: Wednesday, September 24, 2003 4:46 PM

To: Bryan_J._Hannegan@ceq.eop.gov; Phil_Cooney@ceq.eop.gov;
Adele.Morris@do.treas.gov; kruger.joe@epa.gov;
Harvey.Reid@epamail.epa.gov; Chris_Kearney@ios.doi.gov; Kathryn Bickel;
James.R.Mahoney@noaa.gov; Christine_L._Dobridge@oa.eop.gov;
Ted_Gayer@oa.eop.gov; poe@obpa.usda.gov; Amy_L._Farrell@omb.eop.gov;
Christine_A._McDonald@omb.eop.gov; Lori_A._Krauss@omb.eop.gov;
james_andrews@our.navy.mil; Karrigan.Bork@ost.dot.gov;
reifsnnyderda@state.gov; TalleyT@state.gov; TurekianVC@state.gov;
watsonhl@state.gov

Cc: Friedrichs, Mark; Bowers, Mike; Strauss, Neal; Bryce Stokes; Jim
Hrubovcak; Jim Reaves; Keith Collins; Marilyn Buford; Maurice Mausbach;
Michael Poe; Richard Birdsey; joelbrow@nmsu.edu;
Arthur_G._Fraas@omb.eop.gov; Lorraine_D._Hunt@omb.eop.gov;
Paul_R._Noe@omb.eop.gov
Subject: Re: 1605(b) revised draft for comment/discussion on THURSDAY

Amy:

Attached are USDA comments on the revised draft for comment. We limited our comments to the changes since we last saw the document. We raise questions in a few places that we hope to discuss tomorrow.

Our comments can be found on pages: 6, 10, 13, 14, 15, 22, and 31. Note: The page numbers in the attached draft may slide a little due to the additions. Our comments appear in blue. We bolded them to distinguish them from earlier comments.

Bill

William G. Hohenstein
Director
USDA Global Change Program Office
1400 Independence Avenue, SW
Room 4408 USDA South Building
Washington, DC 20250

Phone: (202) 720-6698
Fax: (202) 401-1176

Hannegan, Bryan J.

From: Friedrichs, Mark [Mark.FRIEDRICHS@hq.doe.gov]
Sent: Thursday, September 25, 2003 2:41 PM
To: Hannegan, Bryan J.
Subject: FW: 1605(b) revised draft for comment/discussion on THURSDAY
Follow Up Flag: Follow up
Flag Status: Flagged

-----Original Message-----

From: William Hohenstein [mailto:WHOHENST@mailoce.oce.usda.gov]
Sent: Wednesday, September 24, 2003 4:46 PM
To: Bryan_J._Hannegan@ceq.eop.gov; Phil_Cooney@ceq.eop.gov;
Adele.Morris@do.treas.gov; kruger.joe@epa.gov;
Harvey.Reid@epamail.epa.gov; Chris_Kearney@ios.doi.gov; Kathryn Bickel;
James.R.Mahoney@noaa.gov; Christine_L._Dobridge@oa.eop.gov;
Ted_Gayer@oa.eop.gov; poe@obpa.usda.gov; Amy_L._Farrell@omb.eop.gov;
Christine_A._McDonald@omb.eop.gov; Lori_A._Krauss@omb.eop.gov;
james_andrews@onr.navy.mil; Karrigan.Bork@ost.dot.gov;
reifsnyderda@state.gov; TalleyT@state.gov; TurekianVC@state.gov;
watsonhl@state.gov
Cc: Friedrichs, Mark; Bowers, Mike; Strauss, Neal; Bryce Stokes; Jim
Hrubovcak; Jim Reaves; Keith Collins; Marilyn Buford; Maurice Mausbach;
Michael Poe; Richard Birdsey; joelbrow@nmsu.edu;
Arthur_G._Fraas@omb.eop.gov; Lorraine_D._Hunt@omb.eop.gov;
Paul_R._Noe@omb.eop.gov
Subject: Re: 1605(b) revised draft for comment/discussion on THURSDAY

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Bill

William G. Hohenstein
Director

004257

Greenhouse Effects/1605(b) CEQ 005304
General Guidelines Review and Roll-Out

9/25/2003

CEQ
447 PC

Interagency Working Group on Climate Change Science and Technology

**Thursday, September 25, 2003, 10:00 a.m. to 12:00 p.m.
Department of Commerce, Rm. 4830**

Agenda

| Time | Item | Invited Discussion Lead |
|-------|--|------------------------------|
| 10:00 | Call to Order | Dep. Sec. Bodman, DOC |
| 10:05 | Legislative and Policy Update | Chairman Connaughton, CEQ |
| 10:20 | Budget Update | Assoc. Director Peacock, OMB |
| 10:30 | Earth Observation Summit Update | Ass't. Admin. Withee, NOAA |
| 10:45 | CCSP Update | Ass't. Sec. Mahoney, DOC |
| 11:05 | International Update | U/S Dobriansky, State |
| 11:20 | CCTP Deliverables | CCTP Dir. Conover, DOE |
| 11:45 | International Partnership for the Hydrogen Economy and International Energy Cooperation Task Force | Director OCCP Eule, DOE |
| 11:50 | Other Topics and General Discussion | Dep. Sec. Bodman, DOC |
| 12:00 | Adjourn | |



Withee

CEQ
447 PC

Interagency Working Group on Climate Change Science and Technology

Thursday, September 25, 2003, 10:00 a.m. to 12:00 p.m.
Department of Commerce, Rm. 4830

Agenda

| | | |
|-------|--|------------------------------|
| 10:00 | Call to Order | Dep. Sec. Bodman, DOC |
| 10:05 | Legislative and Policy Update | Chairman Connaughton, CEQ |
| 10:20 | Budget Update | Assoc. Director Peacock, OMB |
| 10:30 | Earth Observation Summit Update | Ass't. Admin. Withee, NOAA |
| 10:45 | CCSP Update | Ass't. Sec. Mahoney, DOC |
| 11:05 | International Update | U/S Dobriansky, State |
| 11:20 | CCTP Deliverables | CCTP Dir. Conover, DOE |
| 11:45 | International Partnership for the Hydrogen Economy and International Energy Cooperation Task Force | Director OCCP Eule, DOE |
| 11:50 | Other Topics and General Discussion | Dep. Sec. Bodman, DOC |
| 12:00 | Adjourn | |



WES

000743

International Update

Paula Dobriansky
Under Secretary of State for Global Affairs
U.S. Department of State

Interagency Working Group on
Climate Change Science and Technology

September 25, 2003

Climate Change Bilateral Status

Developed Countries

- Japan
- European Union (EU)
- Italy
- Australia
- Canada
- New Zealand
- Russia

Developing Countries

- Central American Countries (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama)
- China
- India
- Republic of Korea
- Mexico
- South Africa

Outline

- Climate Change Bilateral Status
- Upcoming International Meetings
 - World Climate Change Conference-Moscow: September 29-October 3.
 - IPCC Plenary-Vienna: November 3-7.
 - Climate Change Technology Bazaar-New Delhi: November 10-13.
 - COP9-Milan: December 1-12.

Recent Climate Change Bilateral Activities

Developed Countries

- Japan
- Italy

Developing Countries

- India
- South Africa

World Climate Change Conference-Moscow: September 29-October 3, 2003

Takes place next Monday-Friday (September 29-October 3) in Moscow.

President Putin to speak at the Conference's Opening Ceremony Monday morning.

Plenary and Section Sessions on: (1) climate change science; (2) ecological, social and economic impacts of climate change; and (3) mitigation of and adaptation to climate change.

Admiral Lautenbacher is speaking Tuesday morning on the CCSP.

Climate Change Technology Bazaar-New Delhi: November 10-13, 2003

International exhibit to showcase "climate-friendly" technologies and practices, products and services.

Associated events include related UNFCCC/UNEP workshops and meetings.

USAID, DOE and EPA sponsoring booths, as are as several U.S. private sector firms to form a "U.S. Pavilion." USAID-New Delhi is coordinating an interagency brochure to highlight U.S.-India bilateral cooperation.

U.S. to host a series of presentations in a "U.S. Country Day" event.

IPCC Plenary-Vienna: November 3-7, 2003

The 21st Session of the IPCC Plenary is to take place in Vienna, November 3-7, 2003.

Main Goal: Approve outlines of the three IPCC Working Group contributions to the 2007 IPCC Fourth Assessment Report.

COP9-Milan: December 1-12, 2003

Pre-COP9 informal consultation: October 6 in Rome.

US Government Side Events, Exhibits, and Associated Activities.

Getting out Our Message on U.S. Climate Policy.

CEC
448 PC

000952

CEQ 005309

CEQ 37 PC

NOAA
OFFICE OF GENERAL COUNSEL
NATURAL RESOURCES



NOAA Office of the
General Counsel

FAX TRANSMISSION

Date: 9/29/03

Addressee: Phil Conroy

Phone Number: _____ Routing: _____
FAX Number: _____

Originator: Linda Burlington
Phone Number: (301) 713-1332 Routing: NOAA/GCNR
FAX Number: (301) 713-1229

Number of Pages: 3
(Including cover)

COMMENTS

Here is the CEI reply from NOAA.

000667

***** The information contained in this facsimile message is attorney privileged and confidential information intended only for the use of the individual named above. If the reader of this message is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please immediately notify us by telephone at 301-713-1217. Thank you.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Silver Spring, MD 20910

OFFICE OF OCEANIC AND ATMOSPHERIC RESEARCH

APR 25 2003

Mr. Christopher C. Horner
Competitive Enterprise Institute
Suite 1250
1001 Connecticut Avenue, N.W.
Washington, D.C. 20036

Dear Mr. Horner:

Thank you for your "Request for Correction of Information: Petition to Cease Dissemination of the National Assessment on Climate Change, Pursuant to the Federal Data Quality Act" addressed to the National Oceanic and Atmospheric Administration (NOAA) (hereinafter "request"), amended and received February 26, 2003, requesting correction of information under Section 515 of the Treasury and General Government Appropriations Act of 2001 (Public Law 106-554) (hereinafter "Section 515"). The referenced document, originally disseminated electronically and in print in December 2000, is titled "Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change," and will hereinafter be referred to as the "National Assessment." Based upon our review, your request is denied because it does not involve "information" that is "disseminated" pursuant to the NOAA Information Quality Guidelines (NOAA IQ Guidelines), which can be found at:
<http://www.noaaneews.noaa.gov/stories/iq.htm>.

NOAA does not disseminate the National Assessment. While NOAA does provide information that was incorporated by others into the National Assessment, that does not amount to "dissemination" of the National Assessment itself. The incorporated information was provided pursuant to requests from the National Assessment Synthesis Team, which is a Federal Advisory Committee Act (FACA) committee. Also, although some NOAA web sites do contain hyperlinks to the National Assessment, the NOAA IQ Guidelines provide that the mere provision of hyperlinks to information, absent some accompanying language indicating adoption by NOAA, does not amount to dissemination so long as NOAA is not basing policy or decisions on the linked information.

Part III.C.1. of the NOAA IQ Guidelines provides:

A request for correction states a claim if it reasonably demonstrates, on the strength of the assertions made in the request alone, and assuming they are true and correct, that the information disseminated was based upon a misapplication or non-application of NOAA's applicable published information quality standards. In other words, to state a claim, a request for



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CEQ 005312

correction must actually allege that NOAA disseminated information that does not comply with applicable guidelines.

In your request, you suggest that NOAA is responsible for the National Assessment by referring to the fact that NOAA is hosting the website site of the Committee for Environment and Natural Resources (CENR), under whose auspices the National Science Foundation chartered the National Assessment Synthesis Team, the FACA committee that produced the National Assessment, using the NOAA domain name (noaa.gov). Thank you for pointing out that web site. In a separate process, NOAA is reviewing its web hosting activities as part of clarifying its policies on hosting and use of the NOAA domain name. The CENR web page may or may not meet the criteria of the emerging policy. If it does not, use of the noaa.gov domain name will be discontinued. Also, in researching your request, NOAA found one web page that contains a hyperlink to the National Assessment and a statement that the information on that page is based, in part, upon the National Assessment. Further investigation showed that none of the information on that page is, in fact, based upon the National Assessment. Therefore, that page has been corrected.

You may file an appeal of this denial, as outlined in Part III.D.1. of the NOAA IQ Guidelines, within 30 calendar days of the date of this correspondence. Your appeal must include: 1) the requestor's name, current home or business address, and telephone number or electronic mail address; 2) a copy of the original request and any correspondence regarding the initial denial (including a copy of this document); and 3) a statement of the reasons why you, the requestor, believe this decision is in error.

The complete appeal must be submitted to:

NOAA Section 515 Officer
NOAA Executive Secretariat
Herbert C. Hoover Building - Room 5230
14th and Constitution Avenue, N.W.
Washington, D.C. 20230

Sincerely,



Ernest G. Hildner, III
Acting Deputy Assistant Administrator
Office of Oceanic and Atmospheric
Research

cc: Daniel Cohen, DOC
Dr. James Mahoney, NOAA
Carl Staton, NOAA
James Walpole, NOAA
Glenn Tallia, NOAA
Linda Burlington, NOAA

CEQ 37 PC

NOAA
OFFICE OF GENERAL COUNSEL
NATURAL RESOURCES



NOAA Office of the
General Counsel

FAX TRANSMISSION

Date: 9/29/03

Addressee: Phil Conroy

Phone Number: _____ Routing: _____
FAX Number: _____

Originator: Linda Burlington
Phone Number: (301) 713-1332 Routing: NOAA/GCNR
FAX Number: (301) 713-1229

Number of Pages: 3
(Including cover)

COMMENTS

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Silver Spring, MD 20910

OFFICE OF OCEANIC AND ATMOSPHERIC RESEARCH

APR 25 2003

Mr. Christopher C. Horner
Competitive Enterprise Institute
Suite 1250
1001 Connecticut Avenue, N.W.
Washington, D.C. 20036

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The complete appeal must be submitted to:

NOAA Section 515 Officer
NOAA Executive Secretariat
Herbert C. Hoover Building - Room 5230
14th and Constitution Avenue, N.W.
Washington, D.C. 20230

Sincerely,



Ernest G. Hildner, III
Acting Deputy Assistant Administrator
Office of Oceanic and Atmospheric
Research

cc: Daniel Cohen, DOC
Dr. James Mahoney, NOAA
Carl Staton, NOAA
James Walpole, NOAA
Glenn Tallia, NOAA
Linda Burlington, NOAA

Cooney, Phil

From: Harlan Watson [REDACTED] (S)(G)
Sent: Monday, September 29, 2003 6:25 AM
To: talleyt@state.gov; gordonsc@state.gov; vcturekian@state.gov; Peel, Kenneth L.; Cooney, Phil
Subject: Moscow--This morning Putin said that Russia has not yet decided whether to will ratify Kyoto

Greetings to all from Moscow.

In his speech here this morning, Putin said that Russia has not yet decided whether to ratify Kyoto.

Following are specific quotes:

"The Russian Government is meticulously examining this question and is studying all of the difficult problems associated with it."

"The decision will be taken at the end of this work and in conformity with Russia's national interests."

"While working out legal norms, we must take into account the interests of all nations and not allow restrictions on economic and social development, but at the same time insuring a proper mechanism of control over the agreements reached."

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WMO

INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



UNEP

INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE

WORKING GROUP I - 9th SESSION
Vienna, 4 November 2003

WG-I: 9th/Doc. 4
Item 3
(24.IX.2003)
ENGLISH ONLY

WORKING GROUP I CONTRIBUTION TO THE IPCC FOURTH ASSESSMENT REPORT

Implementation

(Submitted by the Co-Chairs of Working Group I)

IPCC Secretariat, c/o WMO, 7bis, Avenue de la Paix, C.P. N° 2300, 1211 Geneva 2, SWITZERLAND
Phone: +41 22 730 8208/8254 Fax: +41 22 730 8025/8013
E-mail: ipcc_sec@gateway.wmo.ch Website: <http://www.ipcc.ch>

CEQ 005319

Cooney, Phil

From: Harlan Watson, [REDACTED] (B)(6)
Sent: Tuesday, September 30, 2003 5:32 PM
To: talleyt@state.gov; turekianvc@state.gov; gordonsc@state.gov; Cooney, Phil; Peel, Kenneth L.
Subject: Official translation of Putin's remarks at the opening of the WCCC yesterday morning

Following is the official translation of Putin's remarks at the opening of the WCCC yesterday morning.

MINISTRY OF FOREIGN AFFAIRS OF THE RUSSIAN FEDERATION
INFORMATION AND PRESS DEPARTMENT

32/34 Smolenskaya-Sennaya pl., 119200, Moscow G-200;
tel.: (095) 244 4119, fax: 244 4112
e-mail: dip@mid.ru, web-address: www.mid.ru

DAILY NEWS BULLETIN

Speech by President of the Russian Federation Vladimir Putin at World Climate Change Conference, Moscow, September 29, 2003

Good afternoon, esteemed ladies and gentlemen.

Academician Israel said just now that the initiative for today's meeting had come from your humble servant at the Big Eight meeting. Actually that had been his initiative and the initiative of our Russian specialists, which they had asked me to sound at the Big Eight meeting.

So that I with ease pass on this ball into our Russian specialists' court. I shall yet say a few words about this.

I, nevertheless, am very glad to welcome you to Moscow, and to congratulate you all on the start of the work of the conference.

Your forum incorporates scientists, entrepreneurs, and the representatives of environmental agencies and public organizations in many countries of the world. I consider this a good opportunity to discuss the problem of global climate change thoroughly.

That was why we so actively backed the initiative of the Russian public, of Russian scientists to hold this conference. This problem, the problem of climate change, has long since been not only of scientific, but of serious practical significance.

In this regard, it is important for modern science to determine the extent of real danger posed by global climate change. The scientists must help to find an answer to another basic question too, namely: what the limits of man's impact on the climate system are.

It is obvious that the scope of the tasks before us requires combining efforts by the entire scientific community. Over the last few decades scientists and representatives of public organizations of many countries - including Russia - have accumulated a solid experience of cooperation. It is the exchange of information and the conduct of joint research and participation in multilateral ecological and climatic programs.

I am convinced it is necessary to actively develop that cooperation, and Russia intends to assist this in every way.

I want also to note the role of international climate organizations and UN programs, in particular, the Intergovernmental Group of Experts on Climate Change. They contribute significantly to coordinating the work of scientists from different countries studying climate problems.

I am convinced: a comprehensive scientific analysis, the conclusions of lawyers, economists and sociologists, broad public support are the necessary groundwork for creating a universal international legal base in the field of climate change.

While working out legal norms, we must take into account the interests of each state and not allow restrictions on economic and social development, but at the same time ensure a proper mechanism of control over the decisions and agreements reached.

Esteemed ladies and gentlemen,

It was no mere chance that Russia became the sponsor of a World Climate Change in Moscow.

Our country has considerable intellectual potential in the field of climatology. The achievements of our schools of science and the services of Russian scientists are recognized by the international community.

Besides that, a quarter of the planet's forests is on the territory of Russia.

For many centuries, Russia has been making a serious practical contribution to reducing the anthropogenic load on climate.

Yes, of course, we well know, and throughout the world this is a known fact: a serious economic decline was observed in Russia over the last decade. At the same time, since 1990, due to, among other things, structural changes in the Russian economy - to this I would like to draw special attention - the loads and emissions have decreased by 32 percent. That helped to offset, in the 1991-2002 period, nearly 40 of the increase of greenhouse gas emission in other countries, if we take 1990 as a starting point.

In this regard, I want to note that there have been calls to Russia to ratify the Kyoto Protocol as soon as possible. Although I am sure that these calls are likely to be repeated at our meeting, I want to note that the Government of the Russian Federation is closely studying and examining this question, which is part of a complex of difficult and unclear problems.

A decision will be made when this work is finished. And, of course, in accordance with the national interests of the Russian Federation.

Esteemed conference participants,

We have more than once seen for ourselves that a

regular and constructive international dialogue helps find keys to solving the global problems of today. That's exactly what the problem of climate change is - complex and multifactor.

Today partnership in this field serves our common interests, and is of real benefit to all countries and indeed, without exaggeration - to all humanity. And I am certain that by cooperating with each other, we can achieve even greater successes.

Allow me to wish you fruitful work, interesting discussions, realization of your plans and acquaintance with Moscow.

All the best to you.

Thank you very much.

Remarks During the Forum

People in Russia often say either in jest or in earnest - we are a northern country and a temperature 2-3 degrees warmer would not be scary, maybe it would be good. You would have to spend less money on fur coats and other warm things.

Farm experts say: why, our grain output is up and will further rise, and thank God.

This is all true, of course, but, undoubtedly, we've got to think of other things. We've got to think of the consequences of these likely global climate changes. We've got to think in what regions we would be faced with the heavy consequences of these changes, where droughts would hit us, and where we would have to cope with floods, with which we have been faced ever more often in recent years. What consequences there would be for the people living in those regions, what social, economic and ecological disruptions are likely.

Of course, it is very hard to measure in current time mode the result of the work of the specialists who have gathered in this hall - in rubles, dollars or euros. But we understand perfectly well that to evaluate your work, the results of your activity in money is just as hard in the medium and especially the long term, because these likely changes would be beyond count due to their proportions.

And for us, for the people who organize the life of states or plan the economy, the knowledge with which the specialists who are today in this hall can provide us, is of the utmost importance.

We are very proud that, during these coming days, Moscow will be a center for study of major current problems, the problems of climate change.

This has occurred thanks to your deciding to come to Moscow, come to Russia and gather here for joint work.

We are grateful to you for that.

I sincerely wish you success in your work.

Thank you very much.



WMO

INTERGOVERNMENTAL PANEL ON CLIMATE CH

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INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE

IPCC WORKING GROUP I - 9th SESSION
Vienna, 4 November 2003

WG
Item
(24.IX.2003)
ENGLISH ONLY

**PROPOSED CHAPTER OUTLINE OF THE WORKING GROUP I CONTRIBUTION
TO THE IPCC FOURTH ASSESSMENT REPORT (AR4)**

(Submitted by the Co-chairs of Working Group I)

000727

IPCC Secretariat, c/o WMO, 7bis, Avenue de la Paix, C.P. N° 2300, 1211 Geneva 2, SWITZERLAND
Phone: +41 22 730 8226/8264 Fax: +41 22 730 8025/8013
E-mail: ipcc_sec@gateway.wmo.ch Website: <http://www.ipcc.ch>

CEQ 005324

Working Group I Contribution to the IPCC Fourth Assessment Report Climate Change 2007: The Physical Science Basis

Summary for Policymakers

Technical Summary

1. Historical Overview of Climate Change Science

Executive Summary

- Introduction
- Progress in Observations
- Progress in Understanding of Radiative Forcing, Processes, and Coupling
- Progress in Climate Modelling
- Advances in Understanding Uncertainties

Appendix: Glossary of Terms

2. Changes in Atmospheric Constituents and in Radiative Forcing

Executive Summary

- Introduction
- Definition and Utility of Radiative Forcing
- Recent Changes in Greenhouse Gases
- Aerosols – Direct and Indirect Radiative Forcing
- Radiative Forcing due to Land Use Changes
- Contrails and Aircraft-Induced Cirrus
- Variability in Solar and Volcanic Radiative Forcing
- Synthesis of Radiative Forcing Factors
- GWPs and Other Metrics for Comparing Different Emissions

Appendix: Techniques, Error Estimation, and Measurement Systems

3. Observations: Atmospheric and Surface Climate Change

Executive Summary

- Introduction
- Changes in Surface Climate
- Changes in the Free Atmosphere
- Changes in Atmospheric Circulation

7. Couplings Between Changes in the Climate System and Biogeochemistry

Executive Summary

- Introduction to Biogeochemical Cycles
- The Carbon Cycle and the Climate System
- Global Atmospheric Chemistry and Climate Change
- Air Quality and Climate Change
- Aerosols and Climate Change
- The Changing Land Surface and Climate
- Synthesis: Interactions Among Cycles and Processes

8. Climate Models and their Evaluation

Executive Summary

- Advances in Modeling
- Evaluation of Contemporary Mean Climate as Simulated by Coupled Global Models
- Evaluation of Large Scale Climate Variability as Simulated by Coupled Global Models
- Evaluation of the Key Relevant Processes as Simulated by Coupled Global Models
- Model Simulations of Extremes
- Climate Sensitivity
- Evaluation of Model Simulations of Thresholds and Abrupt Events
- Representing the Global System With Simpler Models

9. Understanding and Attributing Climate Change

Executive Summary

- Introduction
- Radiative Forcing and Climate Response
- Predictions of the Climate System and their Reliability
- Understanding Pre-Industrial Climate Change
- Understanding Climate Change During the Instrumental Era

Appendix: Methods used to assess predictability

Appendix: Methods used to detect externally forced signals (detection/attribution)

Appendix: Methods used to assess uncertainty

10. Global Climate Projections

Executive Summary

- Introduction

Hannegan, Bryan J.

From: Towcimak, Natalie
Sent: Wednesday, October 01, 2003 4:54 PM
To: Cooney, Phil; Hannegan, Bryan J.
Cc: Fiddelke, Debbie S.
Subject: FW: DOC Draft Response on How the CCSP Strategic Plan Addressed NRC Rept Recommendations

I assume you will coordinate comments? Due Tuesday 10/7 by 10:00 am.
Thanks-Nat

-----Original Message-----

From: Fitter, E. Holly
Sent: Wednesday, October 01, 2003 4:28 PM
To: Wuchte, Erin; Lyon, Randolph M.; Radzanowski, David P.; Neyland, Kevin F.; Fairweather, Robert S.; Irwin, Janet E.; Erbach, Adrienne C.; Mertens, Richard A.; Reilly, Thomas; Kulikowski, James M.; Foster, Gillian J.; Smith, Bryan R.; Mertens, Steven M.; Lobrano, Lauren C.; Peacock, Marcus; Rossman, Elizabeth L.; Newstead, Jennifer G.; Nec Lrm; Cea Lrm; Joseffer, Daryl L.; Kaminski, Amy; Rothenberg, Jason; Ceq Lrm; dodlrs@osdgc.osd.mil; energy.gc71@hq.doe.gov; epalrm@epamail.epa.gov; CLRM@doc.gov; lrm@hhs.gov; ocl@ios.doi.gov; usdaobpaleg@obpa.usda.gov; lrm@nsf.gov; NASA_LRM@hq.nasa.gov; state-lrm@state.gov; dot.legislation@ost.dot.gov; GC.OMB@usaid.gov; Ostp Lrm; Olsen, Kathie L.; justice.lrm@usdoj.gov; Cooney, Phil; wilkinsc@ogr.si.edu
Cc: Jukes, James J.; Burnim, John D.
Subject: DOC Draft Response on How the CCSP Strategic Plan Addressed NRC Rept Recommendations

Please review the attached draft response (developed by the interagency climate group) to be signed by DOC Secretary Evans, to Chairman Ehlers regarding how the U.S. Climate Change Science Program (CCSP) Strategic Plan addressed the recommendations in the National Research Council (NRC) report, entitled "Planning Climate and Global Change Research: A Review of the Draft of the U.S. Climate Change Science Program Strategic Plan."

Attached is the incoming request, the DOC cover letter, and an enclosure containing the responses to the NRC Report recommendations.

Please provide any comments by 10:00 Tuesday 10/7. Thanks.



ccspenclosure.wpd
(155 KB)

- ccspenclosure.wpd



ccspincoming.TIF
(65 KB)

- ccspincoming.TIF



ccspoutgoing.wpd
(5 KB)

- ccspoutgoing.wpd

LRM ID: EHF196

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
Washington, D.C. 20503-0001

Wednesday, October 1, 2003

004255

LEGISLATIVE REFERRAL MEMORANDUM

Climate Change Science Program
Rep. Ehlers

CEQ 005328

TO: Legislative Liaison Officer - See Distribution below
FROM: John D. Burnim (for) Assistant Director for Legislative Reference
OMB CONTACT: E. Holly Fitter

E-Mail: E_Holly_Fitter@omb.eop.gov
PHONE: (202)395-3233 FAX: (202)395-5691

SUBJECT: COMMERCE Letter on How CCSP Strategic Plan Addresses NRC Report Recommendations

DEADLINE: 10:00 AM Tuesday, October 7, 2003

In accordance with OMB Circular A-19, OMB requests the views of your agency on the above subject before advising on its relationship to the program of the President. Please advise us if this item will affect direct spending or receipts.

COMMENTS:

DISTRIBUTION LIST

AGENCIES:

019-Council on Environmental Quality - Debbie S. Fiddelke - (202) 456-3908
029-DEFENSE - Vic Bernson - (703) 697-1305
032-ENERGY - Al Beer - (202) 586-4312
033-Environmental Protection Agency - Edward Krenik - (202) 564-5200
025-COMMERCE - Michael A. Levitt - (202) 482-3151
052-HEALTH & HUMAN SERVICES - Sondra S. Wallace - (202) 690-7773
059-INTERIOR - Jane Lyder - (202) 208-4371
007-AGRICULTURE - Jacquelyn Chandler - (202) 720-1272
084-National Science Foundation - Lawrence Rudolph - (703) 292-8060
069-National Aeronautics and Space Administration - Charles T. Horner III - (202) 358-1948
114-STATE - VACANT - (202) 647-4463
117 & 340-TRANSPORTATION - Tom Herlihy - (202) 366-4687
008-US Agency for International Development - Jan W. Miller - (202) 712-4174
109-Smithsonian Institution - Nell Payne - (202) 357-2962
095-Office of Science and Technology Policy - Maureen O'Brien - (202) 456-6037
JUSTICE

II . M . 1 CEQ 9 GRC

United States General Accounting Office

GAO

Testimony

Before the Committee on Commerce,
Science, and Transportation
United States Senate

For Release on Delivery
Expected at 9:30 a.m.
Wednesday, October 1, 2003

CLIMATE CHANGE

Preliminary Observations
on the Administration's
February 2002 Climate
Initiative

Statement of John B. Stephenson, Director
Natural Resources and Environment





Highlights of GAO-04-131T, a report to Senate Committee on Commerce, Science, and Transportation

CLIMATE CHANGE

Preliminary Observations on the Administration's February 2002 Climate Initiative

Why GAO Did This Study

In 2002, the Administration announced its Global Climate Change Initiative. It included, among other things, a goal concerning U.S. carbon dioxide and other greenhouse gas emissions, which are widely believed to affect the earth's climate.

The Administration's general goal was to reduce the growth rate of emissions, but not total emissions, between 2002 and 2012. Its specific goal was to reduce emissions intensity 18 percent, 4 percentage points more than the 14 percent decline already expected. Emissions intensity measures the amount of greenhouse gases emitted per unit of economic output. In the United States, this ratio has generally decreased for 50 years or more. Under the Initiative, emissions would increase, but less than otherwise expected.

GAO was asked to testify on whether the Administration's publicly available documents (1) explain the basis for the Initiative's general and specific goals, (2) identify elements to help reduce emissions and contribute to the 18 percent reduction goal, as well as their specific contributions, and (3) discuss plans to track progress in meeting the goal.

This testimony is based on ongoing work, and GAO expects to issue a final report on this work later this year. Because of time constraints, GAO's testimony is based on its analysis of publicly available Administration documents.

www.gao.gov/cgi-bin/getrpt?GAO-04-131T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact John B. Stephenson at (202) 512-3841.

What GAO Found

The Administration stated that the Initiative's general goal is to slow the growth of U.S. greenhouse gas emissions, but it did not provide a basis for its specific goal of reducing emissions intensity 18 percent by 2012. Any reduction in emissions above the 14-percent reduction already anticipated would contribute to this general goal. However, GAO did not find a specific basis or rationale for the Administration's decision to establish a 4-percentage-point reduction goal beyond the already expected reductions.

The Administration identified 30 elements that it expected would reduce U.S. emissions and contribute to meeting its 18 percent reduction goal by 2012. The 30 elements include a range of policy tools (such as regulations, research and development, tax incentives, and other activities) that cover four broad areas: (1) improving renewable energy and certain industrial power systems, (2) improving fuel economy, (3) promoting domestic carbon sequestration (for example, the absorption of carbon dioxide by trees to offset emissions), and (4) challenging business to reduce emissions. GAO found that the Administration provided estimates of the reductions associated with 11 of the 30 elements, but not with the remaining 19 elements. Of these 11 estimates, GAO found that 3 estimates represented future emissions reductions related to activities that occurred after the Initiative was announced. However, the other 8 estimates represented past or current emissions reductions or related to activities that were already underway before the Initiative was announced. Specifically,

- In five cases, an estimate is provided for current or recent reductions, but no information is provided about the expected additional savings to be achieved by 2012, the end of the Initiative.
- In two cases, the elements are expected to yield savings over many years, but it is not clear what emissions reductions will be achieved by 2012.
- In one case, savings are counted for an activity that began prior to the announcement of the Initiative.

It is, therefore, unclear to what extent the 30 elements will contribute to the goal of reducing emissions and, thus, lowering emissions intensity by 2012.

The Administration plans to determine, in 2012, whether the 18-percent reduction goal was met. Unless the Administration conducts one or more interim assessments, it will not be in a position to determine, until a decade after announcing the Initiative, whether its efforts are having the intended effect or whether additional efforts may be warranted.

Mr. Chairman and Members of the Committee:

We are pleased to be here today to discuss our preliminary observations on certain aspects of the Administration's February 2002 Global Climate Change Initiative. This Initiative included, among other things, a goal related to domestic emissions of carbon dioxide and other greenhouse gases.

Specifically, the Initiative established the goal of reducing U.S. emissions intensity 18-percent by 2012, which is 4 percentage points more than the 14-percent reduction that was otherwise expected to occur. In 2012, this 4-percent reduction in emissions intensity is expected to translate into a 100 million ton reduction in carbon emissions below levels that would be expected in the absence of the Initiative. The Initiative is comprised of 30 elements, including partnerships with industry and tax credits, designed to achieve the reduction in emissions intensity.

It is important to note that the Administration's goal is to reduce emissions intensity, not total emissions. Emissions intensity measures the amount of greenhouse gases emitted per unit of economic output. For example, in 1990, U.S. emissions totaled 1,909 million metric tons of carbon equivalent and economic output (or Gross Domestic Product) totaled \$9,216 billion.¹ Dividing these numbers yields an emission intensity ratio of 207 tons of emissions per million dollars of economic output. Emissions intensity changes in response to variations in either emissions or economic output. For example, if emissions increase more slowly than economic output increases, the ratio decreases. If emissions increase more quickly than economic output increases, the ratio increases. If emissions and economic output increase by the same proportion, emissions intensity does not change.

Our testimony, which is based on ongoing work, discusses the extent to which the Administration's public documents (1) explain the basis for its general goal of reducing emissions and its specific goal of reducing emissions intensity 18 percent by 2012, (2) explain how the elements included in the Administration's Initiative are expected to reduce

¹To allow for comparisons among greenhouse gases, which differ in terms of their effects on the atmosphere and their expected lifetimes, emissions are sometimes measured in million metric tons of carbon equivalent (which we refer to as million metric tons). The economic output number is expressed in 1996 dollars.

emissions and contribute to the goal of reducing emissions intensity 18 percent, and (3) discuss the Administration's plans to track progress toward meeting the goal. We expect to issue a final report on the results of our work later this year.

Our testimony is based on our analysis of the Administration's February 2002 Global Climate Change Policy Book and subsequent White House fact sheets, as well as congressional testimony by administration officials, an August 2003 report on federal climate change spending,² and related documents. Because of time constraints, we limited our work to reviewing these documents.

We performed our work between July and September 2003 in accordance with generally accepted government auditing standards.

Summary

In summary, in our review of the Administration's documents, we found that the Administration provided a general basis for its climate goal, but did not provide a detailed rationale for the emissions intensity target that it established. That is, we did not find a specific justification for the additional 4-percentage-point reduction—as opposed to any other target that could have been established—or what achieving a 4-percent reduction is specifically intended to accomplish.

The Administration's documents identified 30 elements that it expects to help reduce greenhouse gas emissions, but did not consistently provide information on how each element would contribute to the approximately 100 million metric tons that it estimates the Initiative will save in 2012. In 11 cases, the Administration provided an estimate of the element's contributions, but in 19 other cases it did not provide such an estimate. Moreover, while 3 of the 11 estimates represented future savings levels related to activities that occurred after the Initiative was announced, the other 8 estimates were based upon past or current savings levels or were related to elements that were underway before the Initiative was announced. Furthermore, we found no current and comprehensive source for information about all 30 of the Initiative's elements and their expected contributions toward achieving the goal of the Initiative.

²Federal Climate Change Expenditures: Report to Congress, Aug. 2003.

Finally, the Administration states that it plans to determine, in 2012, whether the goal of reducing emissions intensity was met. However, the documents we reviewed did not indicate whether it plans to assess its progress in the interim. Unless the Administration conducts one or more interim assessments, it will not be in a position to determine, until a decade after announcing the Initiative, whether its efforts to meet the goal are having the intended effect or whether additional efforts may be warranted.

To help the Congress credibly assess the likelihood that the Initiative will achieve its stated goal, we believe that it would be helpful if the Administration would make readily available more current and complete information regarding the basis for establishing its emissions intensity goal, the elements intended to help achieve it as well as their expected contributions, and plans for monitoring interim progress toward the goal. Providing such information would constitute a small, but important step toward addressing broader issues in the policy debate now before the Congress about the challenges posed by global climate change.

Background

Carbon dioxide and certain other gases trap some of the sun's heat in the earth's atmosphere and prevent it from returning to space. The trapped energy warms the earth's climate, much as glass in a greenhouse. Hence, the gases that cause this effect are often referred to as greenhouse gases. In the United States, the most prevalent greenhouse gas is carbon dioxide, which results from the combustion of coal and other fossil fuels in power plants, the burning of gasoline in vehicles, and other sources. The other gases are methane, nitrous oxide, and three synthetic gases. In recent decades, concentrations of these gases have built up in the atmosphere, raising concerns that continuing increases might interfere with the earth's climate, for example, by increasing temperatures or changing precipitation patterns.

In 1997, the United States participated in drafting the Kyoto Protocol, an international agreement to limit greenhouse gas emissions, and in 1998 it signed the Protocol. However, the previous administration did not submit it to the Senate for advice and consent, which are required for ratification. In March 2001, President Bush announced that he opposed the Protocol.

In addition to the emissions intensity goal and domestic elements intended to help achieve it, the President's February 2002 climate initiative includes (1) new and expanded international policies, such as increasing funding for tropical forests, which sequester carbon dioxide, (2) enhanced

science and technology, such as developing and deploying advanced energy and sequestration technologies, and (3) an improved registry of reductions in greenhouse gas emissions. According to testimony by the Chairman of the White House Council on Environmental Quality, the President's climate change strategy was produced by a combined working group of the Domestic Policy Council, National Economic Council, and National Security Council.

While U.S. greenhouse gas emissions have increased significantly, the Energy Information Administration reports that U.S. emissions intensity has generally been falling steadily for 50 years. This decline occurred, in part, because the U.S. energy supply became less carbon-intensive in the last half-century, as nuclear, hydropower, and natural gas were increasingly substituted for more carbon-intensive coal and oil to generate electricity.

Administration's
Public Documents
Provide a Context But
Not a Specific Basis
for the 18-percent
Goal

The Administration explained that the Initiative's general goal is to slow the growth of U.S. greenhouse gas emissions, but it did not explain the basis for its specific goal of reducing emissions intensity 18 percent by 2012 or what a 4-percent reduction is specifically designed to accomplish. Reducing emissions growth by 4 percentage points more than is currently expected would achieve the general goal, but—on the basis of our review of the fact sheets and other documents—we found no specific basis for establishing a 4-percentage-point change, as opposed to a 2- or 6-percentage-point change, for example, relative to the already anticipated reductions.

According to the Administration's analysis, emissions under its Initiative will increase between 2002 and 2012, but at a slower rate than otherwise expected. Specifically, according to Energy Information Administration (EIA) projections cited by the Administration, without the Initiative emissions will increase from 1,917 million metric tons in 2002 to 2,279 million metric tons in 2012. Under the Initiative, emissions will increase to 2,173 million metric tons in 2012, which is 106 million metric tons less than otherwise expected. We calculated that under the Initiative, emissions would be reduced from 23,162 million metric tons to 22,662 million metric tons cumulatively for the period 2002-12. This difference of 500 million metric tons represents a 2-percent decrease for the 11-year period.

Because economic output will increase faster than emissions between 2002 and 2012, according to EIA's projections, emissions intensity is estimated to decline from 183 tons per million dollars of output in 2002 to 158 tons per million dollars in 2012 (a 14-percent decline) without the

Administration's
Public Documents
Estimated
Contributions for
Some, but Not All, of
the Initiative's
Elements

Initiative, and to 150 tons per million dollars under the Initiative (an 18-percent decline).

The Administration identified 30 elements (26 in February 2002 and another 4 later) that it expected would help reduce U.S. emissions by 2012 and, thus, contribute to meeting its 18-percent goal. These 30 elements include regulations, research and development, tax incentives, and other activities. (The elements are listed in Appendix I.) The Administration groups them into four broad categories, as described below.

Providing incentives and programs for renewable energy and certain industrial power systems. Six tax credits and seven other elements are expected to increase the use of wind and other renewable resources, combined heat-and-power systems, and other activities. The tax credits cover electricity from wind and new hybrid or fuel-cell vehicles, among other things. Other elements would provide funding for geothermal energy, primarily in the western United States, and advancing the use of hydropower, wind, and other resources on public lands. Still other elements involve research and development on fusion energy and other sources.

Improving fuel economy. Three efforts relating to automotive technology and two other elements are expected to improve fuel economy. The technology efforts include advances in hydrogen-based fuel cells and low-cost fuel cells. Two of the five elements are mandatory. First, a regulation requiring the installation of tire pressure monitoring systems in cars and certain other vehicles was finalized in June 2002 and will be phased in between 2003 and 2006.³ Properly inflated tires improve fuel efficiency. Second, a regulation requiring an increase in the fuel economy of light trucks, from the current 20.7 miles per gallon to 22.2 miles per gallon in 2007, was finalized in April 2003.⁴

Promoting domestic carbon sequestration. Four U.S. Department of Agriculture programs were identified as promoting carbon sequestration on farms, forests, and wetlands. Among other things, these programs are intended to accelerate tree planting and converting cropland to grassland or forests.

³Federal Motor Vehicle Safety Standards; Tire Pressure Monitoring Systems; Controls and Displays, 67 Fed. Reg. 38704 (2002)(to be codified at 49 C.F.R. pts. 571 and 596).

⁴Light Truck Average Fuel Economy Standards, Model Years 2005-2007, Final Rule, 68 Fed. Reg. 16868 (2003)(to be codified at 49 C.F.R. pt. 533).

Challenging business to reduce emissions. Voluntary initiatives to reduce greenhouse gases were proposed for U.S. businesses. For major companies that agreed to establish individual goals for reducing their emissions, the Environmental Protection Agency (EPA) launched a new Climate Leaders Program. In addition, certain companies in the aluminum, natural gas, semiconductor, and underground coal mining sectors have joined voluntary partnerships with EPA to reduce their emissions. Finally, certain agricultural companies have joined two voluntary partnerships with EPA and the Department of Agriculture to reduce their emissions.

The Administration provided some information for all 30 of the Initiative's elements, including, in some cases, estimates of previous or anticipated emission reductions. However, inconsistencies in the nature of this information make it difficult to determine how contributions from the individual elements would achieve the total reduction of about 100 million metric tons in 2012. First, estimates were not provided for 19 the Initiative's elements. Second, for the 11 elements for which estimates were provided, we found that 8 were not clearly attributable to the Initiative because the reductions (1) were related to an activity already included in ongoing programs or (2) were not above previous or current levels. We did find, however, that the estimated reductions for the remaining 3 elements appear attributable to the Initiative.

We have concerns about some of the 19 emission reduction elements for which the Administration did not provide savings estimates. At least two of these elements seem unlikely to yield emissions savings by 2012. For example, the April 2003 fact sheet listed hydrogen energy as an additional measure, even though it also stated a goal of commercializing hydrogen vehicles by 2020, beyond the scope of the Initiative. Similarly, the same fact sheet listed a coal-fired, zero-emissions power plant as an additional measure, but described the project as a 10-year demonstration; this means that the power plant would not finish its demonstration phase until the last year of the Initiative, much less be commercialized by then.

Of the 11 elements for which estimates were provided, we found that the estimated reductions for 8 were not clearly attributable to the Initiative. In five cases, an estimate is provided for a current or recent savings level, but no information is provided about the expected additional savings to be achieved by 2012. For example, the Administration states that aluminum producers reduced their emissions by 1.8 million metric tons to meet a goal in 2000, but it does not identify future savings, if any. Similarly, it

states that Agriculture's Environmental Quality Incentives Program, which provides assistance to farmers for planning and implementing soil and water conservation practices, reduced emissions by 12 million metric tons in 2002. However, while the Administration sought more funding for the program in fiscal year 2003, it did not project any additional emissions reductions from the program.

In two cases, it is not clear how much of the claimed savings will occur by the end of the Initiative in 2012. The requirement that cars and certain other vehicles have tire pressure monitoring systems is expected to yield savings of between 0.3 and 1.3 million metric tons a year when applied to the entire vehicle fleet. However, it will take years for such systems to be incorporated in the entire fleet and it is not clear how much of these savings will be achieved by 2012. Similarly, the required increase in light truck fuel economy is expected to result in savings of 9.4 million metric tons over the lifetime of the vehicles covered. Again, because these vehicles have an estimated lifetime of 25 years, it is not clear how much savings will be achieved by 2012.

In one case, savings are counted for an activity that does not appear to be directly attributable to the Initiative. Specifically, in March 2001 (nearly a year before the Initiative was announced), EPA and the Semiconductor Industry Association signed a voluntary agreement to reduce emissions by an estimated 13.7 million metric tons by 2010. Because this agreement was signed before the Initiative was announced, it is not clear that the estimated reductions should be considered as additions to the already anticipated amount.

Estimates for the remaining 3 of the 11 elements appear to be attributable to the Initiative in that they represent reductions beyond previous or current levels and are associated with expanded program activities. These are:

- Agriculture's Conservation Reserve Program was credited with additional savings of 4 million metric tons a year. This program assists farm owners and operators to conserve and improve soil, water, air, and wildlife resources and results in carbon sequestration.
- Agriculture's Wetland Reserve Program was credited with additional savings of 2 million metric tons a year. This program helps convert cropland on wetland soils to grassland or forest and also sequesters carbon emissions.

-
- The Environmental Protection Agency's Natural Gas STAR Program was credited with additional savings of 2 million metric tons a year. This program works with companies in the natural gas industry to reduce losses of methane during production, transmission, distribution, and processing.

More current information about certain of these elements and their expected contributions has been made public, but has not been consolidated with earlier information about the Initiative. For example, the Department of Agriculture's web site includes a June 2003 fact sheet on that agency's programs that contribute to carbon sequestration. Among other things, the fact sheet estimated that the Environmental Quality Incentives Program, cited above, will reduce emissions 7.1 million metric tons in 2012. However, we did not find that such information had been consolidated with the earlier information, and there appears to be no comprehensive source for information about all of the elements intended to help achieve the Initiative's goal and their expected contributions. The lack of consistent and comprehensive information makes it difficult for relevant stakeholders and members of the general public to assess the merits of the Initiative.

Administration's Public Documents Do Not Discuss Plans for Monitoring Interim Progress

According to the February 2002 fact sheet, progress in meeting the 18-percent goal will be assessed in 2012, the final year of the Initiative. At that point, the fact sheet states that if progress is not sufficient and if science justifies additional action, the United States will respond with further policies; these policies may include additional incentives and voluntary programs. The fact sheets did not indicate whether the Administration plans to check its progress before 2012. Such an interim assessment, for example, after 5 years, would help the Administration determine whether it is on course to meet the goal in 2012 and, if not, whether it should consider additional elements to help meet the goal.

Mr. Chairman, this concludes our prepared statement. We would be happy to respond to any questions that you or Members of the Committee may have.

Contacts and Acknowledgments

For further information about this testimony, please contact me at (202) 512-3841. John Delicath, Anne K. Johnson, Karen Keegan, David Marwick, and Kevin Tarmann made key contributions to this statement.

Table 1: Summary of Initiative's Elements Expected to Reduce Greenhouse Gas Emissions

| Number | Measure |
|---|--|
| <i>Providing tax incentives and programs for renewable energy and certain industrial power systems</i> | |
| 1 | Tax credit for combined heat and power systems |
| 2 | EPA Combined Heat and Power Partnership |
| 3 | Department of Energy challenge to heat and power industry |
| 4 | Tax credit for residential solar energy systems |
| 5 | Tax credit for electricity from wind and certain biomass sources |
| 6 | Tax credit for electricity from additional biomass sources |
| 7 | Tax credit for new methane landfill projects |
| 8 | Tax credit for new hybrid or fuel-cell vehicles ^a |
| 9 | Funding for geothermal energy |
| 10 | Renewable energy on public lands |
| 11 | Hydrogen energy |
| 12 | Coal-fired, zero-emissions electricity generation |
| 13 | Fusion energy |
| <i>Improving fuel economy</i> | |
| 14 | Advancing hydrogen-based fuel cells |
| 15 | Department of Energy public-private projects for low-cost fuel cell technology |
| 16 | Fuel economy standards for light trucks |
| 17 | Tire pressure monitoring systems |
| 18 | High-efficiency automobile technology |
| <i>Promoting domestic carbon sequestration</i> | |
| 19 | Conservation Reserve Program |
| 20 | Environmental Quality Incentives Program |
| 21 | Wetland Reserve Program |
| 22 | Forest Stewardship Program |
| <i>Challenging business to decrease emissions</i> | |
| 23 | EPA Climate Leaders Program |
| 24 | Semiconductor industry |
| 25 | Aluminum producers |
| 26 | EPA Natural Gas STAR Program |
| 27 | EPA Coal Bed Methane Outreach Program |
| 28 | AgSTAR Program |
| 29 | Ruminant Livestock Efficiency Program |
| 30 | Climate VISION Partnership |

Source: Data from Global Climate Change Policy Book, Feb. 2002; White House Fact Sheets, July 2002 and April 2003; analysis by GAO.

^aAlso listed in improving fuel economy category.

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Washington, D.C. 20548

Hannegan, Bryan J.

From: Dobridge, Christine L.
Sent: Thursday, October 02, 2003 10:06 AM
To: Farrell, Amy L.; Karrigan Bork (E-mail); Adele Morris (E-mail); Jim Hrubovcak (E-mail); Reid Harvey (E-mail); McDonald, Christine A.; Hannegan, Bryan J.; TalleyT@state.gov; TurekianVC@state.gov; kbickel@oce.usda.gov; Dan Reifsnyder (E-mail); Joe Kruger (E-mail); Krauss, Lori A.; Bill Hohenstein (E-mail); Cooney, Phil; Gayer, Ted; watsonhl@state.gov; Chris_Kearney@ios.doi.gov; James.R.Mahoney@noaa.gov; james_andrews@onr.navy.mil; poe@obpa.usda.gov; Indur_Goklany@ios.doi.gov
Cc: Mark.FRIEDRICHS@hq.doe.gov; Nickerson, William; Bowers, Mike; Neal.Strauss@hq.doe.gov; Fraas, Arthur G.; Noe, Paul R.; Margot.Anderson@hq.doe.gov
Subject: RE: Revised Draft Proposed General Guidelines for 1605b, version 9

Hi Amy and all,

[REDACTED]

Christine Dobridge
Council of Economic Advisers
ph: (202) 395-4730
fax: (202) 395-6870

-----Original Message-----

From: Farrell, Amy L.
Sent: Tuesday, September 30, 2003 12:38 PM
To: Karrigan Bork (E-mail); Adele Morris (E-mail); Jim Hrubovcak (E-mail); Reid Harvey (E-mail); Dobridge, Christine L.; McDonald, Christine A.; Hannegan, Bryan J.; TalleyT@state.gov; TurekianVC@state.gov; kbickel@oce.usda.gov; Dan Reifsnyder (E-mail); Joe Kruger (E-mail); Krauss, Lori A.; Bill Hohenstein (E-mail); Cooney, Phil; Gayer, Ted; watsonhl@state.gov; Chris_Kearney@ios.doi.gov; James.R.Mahoney@noaa.gov; james_andrews@onr.navy.mil; poe@obpa.usda.gov; Indur_Goklany@ios.doi.gov
Cc: Mark.FRIEDRICHS@hq.doe.gov; Nickerson, William; Bowers, Mike; Neal.Strauss@hq.doe.gov; Fraas, Arthur G.; Noe, Paul R.; Margot.Anderson@hq.doe.gov
Subject: Revised Draft Proposed General Guidelines for 1605b, version 9

Greenhouse Effects/1605(b)
General Guidelines Review and Roll-Out

Hi all -

Please review the attached redline draft and provide comment ASAP but no later than noon this Thursday. When you send comment, please reply to everyone or, at the least, please reply to Mark Friedrichs, Bill Nickerson, and myself so we can make sure that any additional changes are reviewed by all appropriate parties.

Thanks,
Amy

----- Forwarded by Amy L. Farrell/OMB/EOP on 09/30/2003 12:37 PM -----



"Friedrichs, Mark" <Mark.FRIEDRICHS@hq.doe.gov>
09/30/2003 10:37:29 AM

Record Type: Record

To: Amy L. Farrell/OMB/EOP

cc: "Anderson, Margot" <Margot.Anderson@hq.doe.gov>, "Bowers, Mike" <Mike.Bowers@hq.doe.gov>, "Strauss, Neal" <Neal.Strauss@hq.doe.gov>

Subject: Revised Draft Proposed General Guidelines for 1605b, version 9

Amy:

[REDACTED]

Thanks.

<<1605(b) General Guidelines v9.doc>> <<Figure 1 for 1605b General Guidelines v2.doc>>

Mark D. Friedrichs, PI-40
Policy and International Affairs
U.S. Department of Energy
202-586-0124

CEQ 005346

Hannegan, Bryan J.

From: Hannegan, Bryan J.

Sent: Thursday, October 02, 2003 11:30 AM

To: 'Friedrichs, Mark'; Farrell, Amy L.; Karrigan Bork (E-mail); Adele Morris (E-mail); Jim Hrubovcak (E-mail); Reid Harvey (E-mail); Christine_L_Dobridge@oa.eop.gov; McDonald, Christine A.; TalleyT@state.gov; TurekianVC@state.gov; kbickel@oce.usda.gov; Dan Reifsnyder (E-mail); Joe Kruger (E-mail); Krauss, Lori A.; Bill Hohenstein (E-mail); Cooney, Phil; Ted_Gayer@oa.eop.gov; watsonhl@state.gov; Chris_Kearney@ios.doi.gov; James.R.Mahoney@noaa.gov; james_andrews@onr.navy.mil; poe@obpa.usda.gov; Indur_Goklany@ios.doi.gov

Cc: Nickerson, William; Bowers, Mike; Strauss, Neal; Fraas, Arthur G.; Noe, Paul R.; Anderson, Margot

Subject: RE: Revised Draft Proposed General Guidelines for 1605b, version 9

[REDACTED]

[REDACTED]

Bryan Hannegan
CEQ

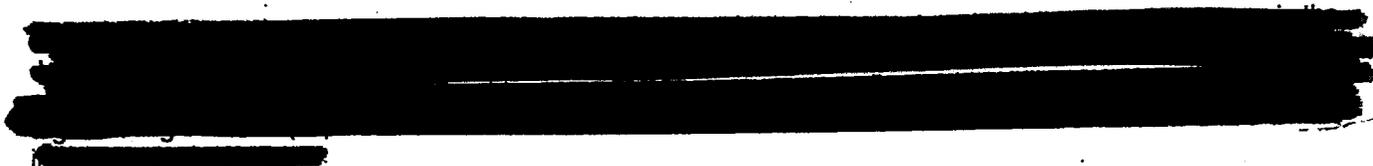
Greenhouse Effects/1605(b)
General Guidelines Review and Roll-Out

CEQ 005348

10/2/2003

Hannegan, Bryan J.

From: Hannegan, Bryan J.
Sent: Thursday, October 02, 2003 2:46 PM
To: 'Anderson, Margot'
Subject: RE: 1605(b) release materials



Comments to follow shortly on the FAQ.

Thanks,
Bryan

Hannegan, Bryan J.

From: Towcimak, Natalie
Sent: Friday, October 03, 2003 12:43 PM
To: Hannegan, Bryan J.
Cc: Cooney, Phil; Fiddelke, Debbie S.
Subject: FW: CCTP Current Activities Report - for review

Bryan,
Please review, I will send you the files as they come. If you prefer, you can go to the website below. Comments due by Friday, October 10th at 10 am.
Thanks,
Natalie

-----Original Message-----

From: Fitter, E. Holly
Sent: Friday, October 03, 2003 12:22 PM
To: Wuchte, Erin; Lyon, Randolph M.; Radzanowski, David P.; Neyland, Kevin F.; Fairweather, Robert S.; Irwin, Janet E.; Erbach, Adrienne C.; Mertens, Richard A.; Reilly, Thomas; Kulikowski, James M.; Foster, Gillian J.; Smith, Bryan R.; Mertens, Steven M.; Lobrano, Lauren C.; Peacock, Marcus; Nec Lrm; Cea Lrm; Joseffer, Daryl L.; Kaminski, Amy; Rothenberg, Jason; Newstead, Jennifer G.; Rossman, Elizabeth L.; Hurst, Kevin D.; Cooney, Phil; Sandoli, Robert; O'Donovan, Kevin M.; Ovp Lrm; Ceq Lrm; usdaobpaleg@obpa.usda.gov; judy.baldwin@usda.gov; julie.allen@usda.gov; dodlrs@dodgc.osd.mil; energy.gc71@hq.doe.gov; epalrm@epamail.epa.gov; CLRM@doc.gov; lrm@hhs.gov; ocl@ios.doi.gov; lrm@nsf.gov; NASA_LRM@hq.nasa.gov; state-lrm@state.gov; dot.legislation@ost.dot.gov; GC.OMB@usaid.gov; wilkinsc@ogr.si.edu; Ostp Lrm; justice.lrm@usdoj.gov
Cc: Burnim, John D.; Jukes, James J.
Subject: CCTP Current Activities Report - for review

Please review the "U.S. Climate Change Technology Program" -- Research and Current Activities - Review Draft September 2003, and provide comments by 10:00 AM Friday October 10. Thanks.

The report file is very large. I will be sending it to you in several pieces in subsequent e-mails, however I am concerned that it may not go through your e-mail buffer.

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LRM ID: EHF198

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OFFICE OF MANAGEMENT AND BUDGET
Washington, D.C. 20503-0001

Friday, October 3, 2003

LEGISLATIVE REFERRAL MEMORANDUM

TO: Legislative Liaison Officer - See Distribution below
FROM: John D. Burnim (for) Assistant Director for Legislative Reference
OMB CONTACT: E. Holly Fitter
E-Mail: E_Holly_Fitter@omb.eop.gov
PHONE: (202)395-3233 FAX: (202)395-5691

SUBJECT: OSTP Report on U.S. Climate Change Technology Program: Key Technologies for the Near and
Climate Change Technology Program Report

Long Term

DEADLINE: 10:00 AM Friday, October 10, 2003

DISTRIBUTION LIST

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JUSTICE

Hannegan, Bryan J.

From: Towcimak, Natalie
Sent: Friday, October 03, 2003 12:57 PM
To: Hannegan, Bryan J.
Cc: Fiddelke, Debbie S.; Cooney, Phil
Subject: FW: Part I of CCTP Current Activities Report (44MB)

Attached is the CCTP report mentioned in my last email. Thanks!

-----Original Message-----

From: Fitter, E. Holly
Sent: Friday, October 03, 2003 12:48 PM
To: Wuchte, Erin; Lyon, Randolph M.; Radzanowski, David P.; Neyland, Kevin F.; Fairweather, Robert S.; Irwin, Janet E.; Erbach, Adrienne C.; Mertens, Richard A.; Reilly, Thomas; Kulikowski, James M.; Foster, Gillian J.; Smith, Bryan R.; Mertens, Steven M.; Lobrano, Lauren C.; Peacock, Marcus; Nec Lrm; Cea Lrm; Joseffer, Daryl L.; Kaminski, Amy; Rothenberg, Jason; Newstead, Jennifer G.; Rossman, Elizabeth L.; Hurst, Kevin D.; Cooney, Phil; Sandoli, Robert; O'Donovan, Kevin M.; Ovp Lrm; Ceq Lrm; usdaobpaleg@obpa.usda.gov; judy.baldwin@usda.gov; julie.allen@usda.gov; dodlrs@dodgc.osd.mil; energy.gc71@hq.doe.gov; epalrm@epamail.epa.gov; CLRM@doc.gov; lrm@hhs.gov; ocl@ios.doi.gov; lrm@nsf.gov; NASA_LRM@hq.nasa.gov; state-lrm@state.gov; dot.legislation@ost.dot.gov; GC.OMB@usaid.gov; wilkinsc@ogr.si.edu; Ostp Lrm; justice.lrm@usdoj.gov
Subject: Part I of CCTP Current Activities Report (44MB)

Please review the "U.S. Climate Change Technology Program" -- Research and Current Activities - Review Draft September 2003, and provide comments by 10:00 AM Friday October 10. Thanks.

Part I of LRM EHF 198



CCTP Activities
Report draft S...

Climate Change Technology Program
Report

308

004274

Environment, Science and
Technology Office
Phone: (7) (095) 728-5312
Fax: (7) (095) 728-5033

.....
facsimile transmittal

To: **Ken Peel, CEQ** Fax: **202-456-2710**

To: **Phil Cooney** Fax:

From: **Michael Sullivan** Date: **10/03/03**
Deputy to the Counselor
Office of Environment, Science
and Technology

Re: **WCCC DOCUMENTS** No. Pages **11**

Urgent Please Comment Please Clear Please Reply X For Your Information

Harlan Watson and Dan Reifsnnyder asked me to pass the following documents from the WCCC in
Moscow along to you

Regards,

Michael

004230

Summary Report of the World Climate Change Conference
(Moscow, October 2003)

The World Climate Change Conference was held in Moscow from September 29th to October 3rd, 2003. Over 2000 participants from more than 100 countries attended this international scientific conference. [Statistics on number of presentations to be added.] The Conference allowed for a large number of scientists to interact with representatives of governments, the private sector, non-government organizations and international organizations. The goal of the Conference was to have a comprehensive discussion of the climate change problem including: understanding natural and anthropogenic factors driving the climate; approaches to reducing anthropogenic emissions; impacts and adaptation measures to on-going climate changes; and hence, to achieve a maximum mutual understanding between scientists, governments, business circles and the public.

The Conference was opened by President Vladimir Putin, President of the Russian federation, and was addressed by senior representatives of a number of international organizations and Ministers from Canada, France and Norway. The first three days of Plenary sessions consisted of overview presentations on many aspects of the climate change issue and included an address by Professor Andrei Illarionov, economic advisor to President Putin, who presented a set of important questions to the Conference, which generated lively discussion and some responses from some participants who had been involved in the IPCC's work.

The Plenary presentations were followed by a full day of detailed scientific presentations on four parallel themes:

- science of climate change;
- ecological, social and economic impacts of climate change;
- mitigation of and adaptation to climate change and the role of technology;
- stakeholder's dialogue.

The Conference also included three Roundtables carried out in parallel with the Plenary and sectorial sessions dealing with:

- energy and climate change;
- carbon market
- social issues.

The Intergovernmental Panel on Climate Change (IPCC) has provided the basis for much of our present understanding of knowledge in this field in its Third Assessment Report (TAR) in 2001. An overwhelming majority of the scientific community has accepted its general conclusions that climate change is occurring, is primarily a result of human emissions of greenhouse gases and aerosols, and that this represents a threat to people and ecosystems.

The World Climate Change Conference provided a valuable opportunity for the presentation of new research results from many new studies and an improved understanding of the climate system, how it might evolve in the future, its potential effects and response options. The new studies presented by Russian scientists revealed the broad spectrum of research taking place in Russia. The rich number of presentations at the Conference allowed little time for detailed discussion or a full understanding of the implications of the new research studies. The results, nevertheless, will be available in the complete proceedings of the Conference and will undoubtedly be a valuable input to the IPCC's Fourth Assessment Report, work on which has just begun.

This Conference, which gathered together participants from all over the World, achieved its goal of presenting many new scientific findings and generating a lively dialogue between all participants and in that sense is expected to have a significant impact on further scientific research and policy discussions.

Summary reports from the individual scientific sections and roundtables, prepared by their respective chairs, are attached as appendices.

The participants at this Conference expressed their deep appreciation to President Putin and the government of the Russian Federation for hosting this timely and important international event.

Вопросы Советника Президента Российской Федерации А.Н. Илларионова
The questions of A.N. Illarionov, Adviser of the President of Russian Federation

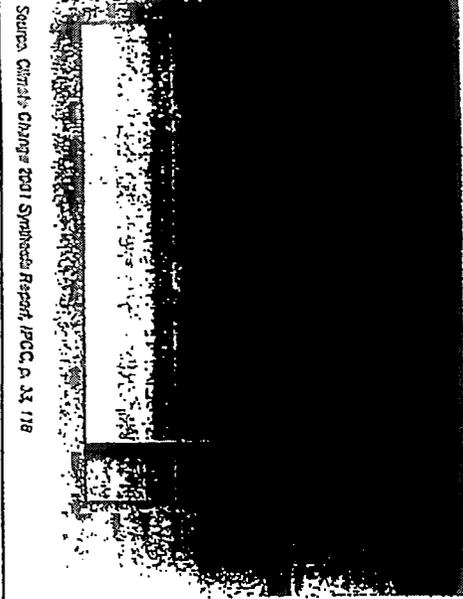
1. What was the actual level of Carbon Dioxide concentration in atmosphere in 1980-2000?
Каковы реальные уровни концентрации диоксида углерода в атмосфере с 1980 по 2000 г.?
2. What are the parameters of the model of temperature anomalies? And how were they derived? Why are there such fluctuations in anthropogenic forcing observations?
Каковы параметры моделей температурных аномалий? Как они были определены? Чем объяснить такие колебания в наблюдениях антропогенных факторов воздействия (до начала прошлого века)?
3. Can we explain the temperature variation by CO₂ concentration in atmosphere in the past 1000 years?
Можем ли мы объяснить изменения температуры накоплением CO₂ в атмосфере за последние 1000 лет?
4. Can we explain the temperature variation by CO₂ concentration in the atmosphere in the past 140 years?
Можем ли мы объяснить изменения температуры накоплением CO₂ в атмосфере за последние 140 лет?
5. Can we explain the temperature variation by CO₂ emissions of anthropogenic character?
Можем ли мы объяснить изменения температуры антропогенной эмиссией CO₂?
6. Other factors explaining temperature variation? Volcanic activity? Whether to include into the model?
Другие факторы, объясняющие изменения температуры? Вулканическая деятельность? Может быть включить в модели?
7. Other factors explaining temperature variation? Long-term cycles? Whether to include into the model?
Другие факторы, объясняющие изменения температуры? Длительные циклы? Может быть включить в модели?
8. Is the modern "global warming" unique in the last 5000 years?
Является современное «глобальное потепление» уникальным за последние 5000 лет?
9. Can we achieve the Kyoto protocol targets, providing the share of the Annex I countries' (incl. Russia, not incl. USA and Australia) in the world's CO₂ emissions is rapidly falling?
Можем ли мы достигнуть целей Киотского протокола при условии, что вклад стран Приложения I (включая Россию и исключая США и Австралию) в глобальную эмиссию CO₂ быстро снижается?
10. And finally: How much does it cost?
И наконец: Сколько это стоит?

ANTHROPOGENIC FACTOR IN GLOBAL WARMING: SOME QUESTIONS

ANTHROPOGENIC FACTORS IN GLOBAL WARMING: SOME QUESTIONS

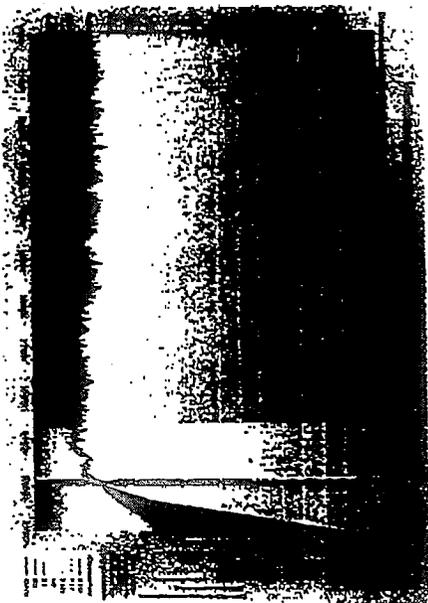
A. Il'yarov
Adviser to the President of Russia
October 4, 2003
Institute of Economic Analysis

1. What was the actual level of Carbon Dioxide concentration in atmosphere in 1980-2007

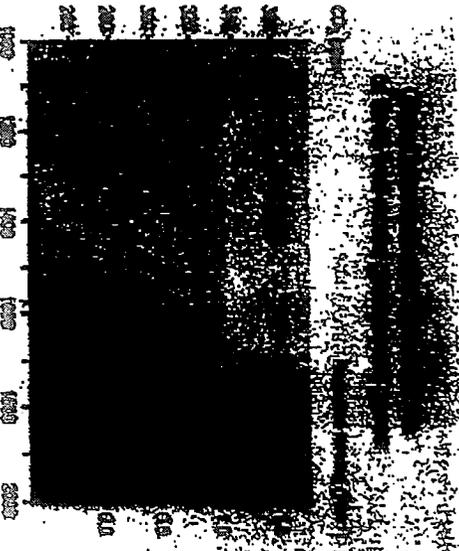


Source: Climate Change 2001 Synthesis Report, IPCC, p. 33, 118

The forecast is alarming. What is the basis for it?

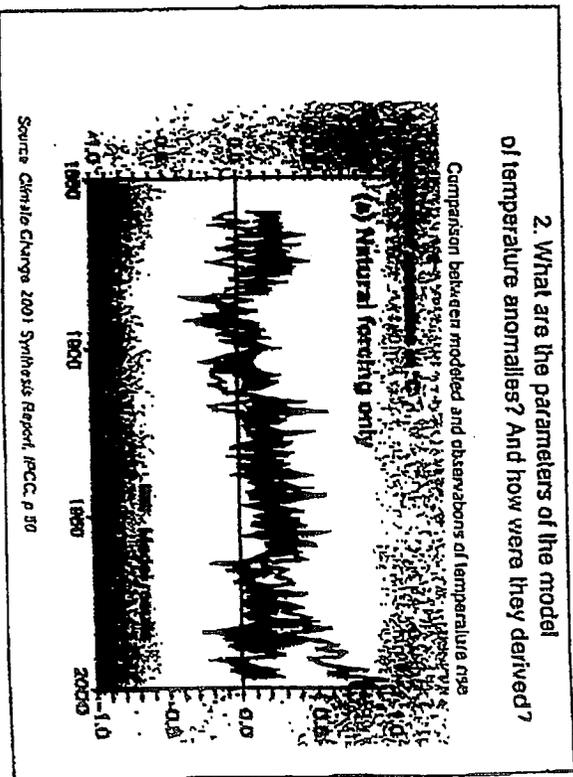
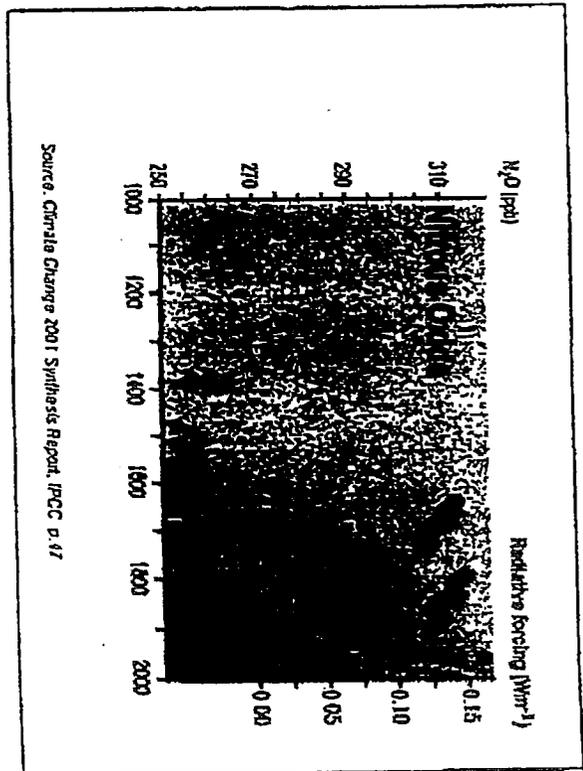
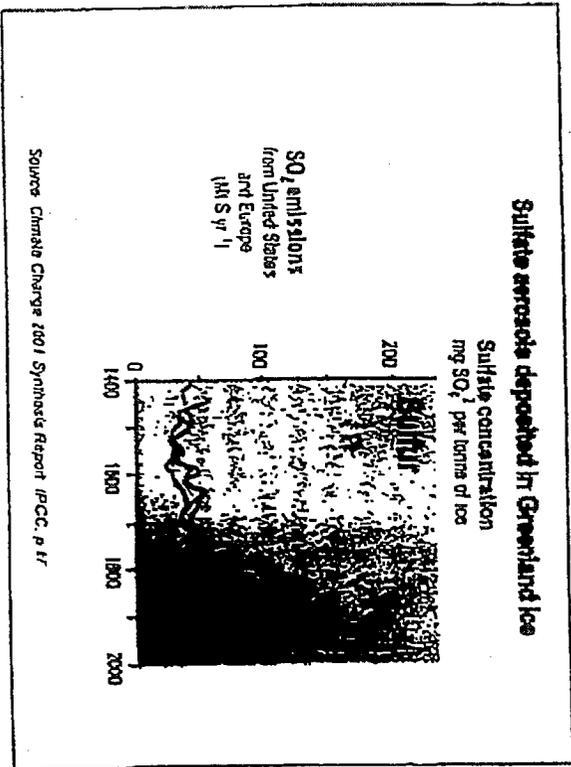
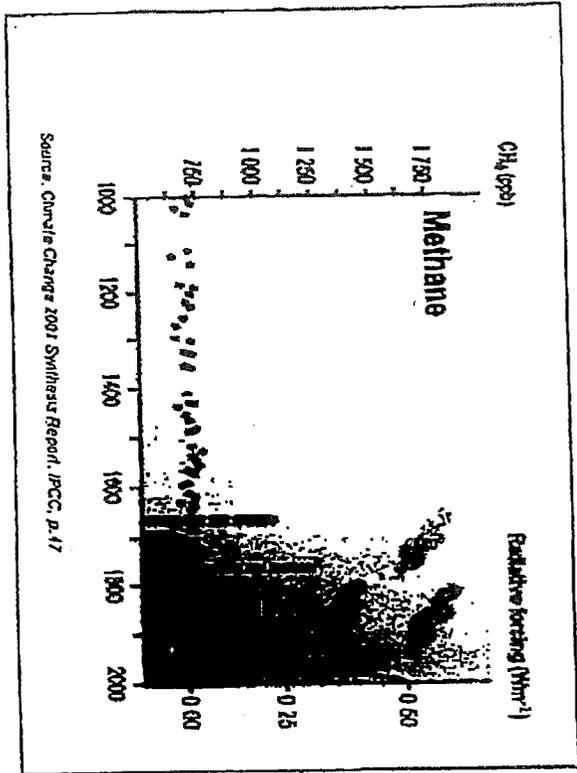


Source: Climate Change 2001 Synthesis Report, IPCC, p. 34, 162



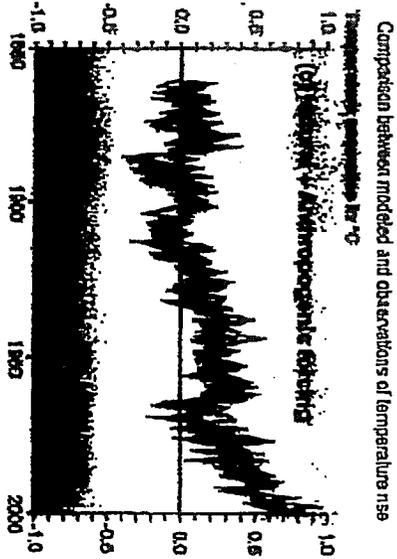
Source: Climate Change 2001 Synthesis Report, IPCC, p. 47

ANTROPOGENIC FACTOR IN GLOBAL WARMING:
SOME QUESTIONS



ANTHROPOGENIC FACTOR IN GLOBAL WARMING: SOME QUESTIONS

2. What are the parameters of the model of temperature anomalies? And how were they derived?



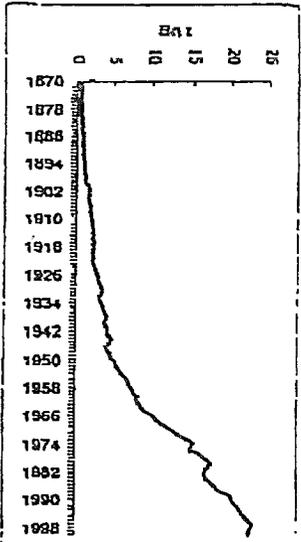
Source: Climate Change 2001 Synthesis Report, IPCC, p. 54

2. What are the parameters of the model of temperature anomalies? And how were they derived? Why are there such fluctuations in anthropogenic forcing observations?



Source: Climate Change 2001 Synthesis Report, IPCC, p. 59

World's CO₂ emissions of anthropogenic character



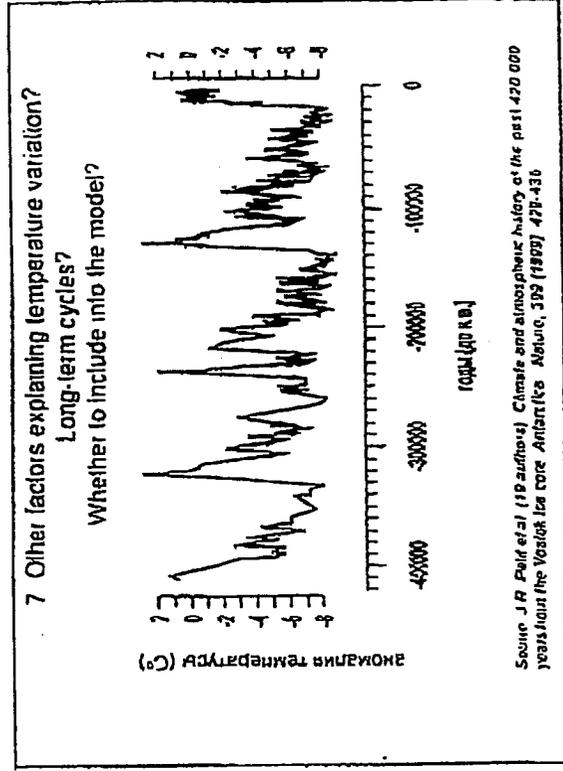
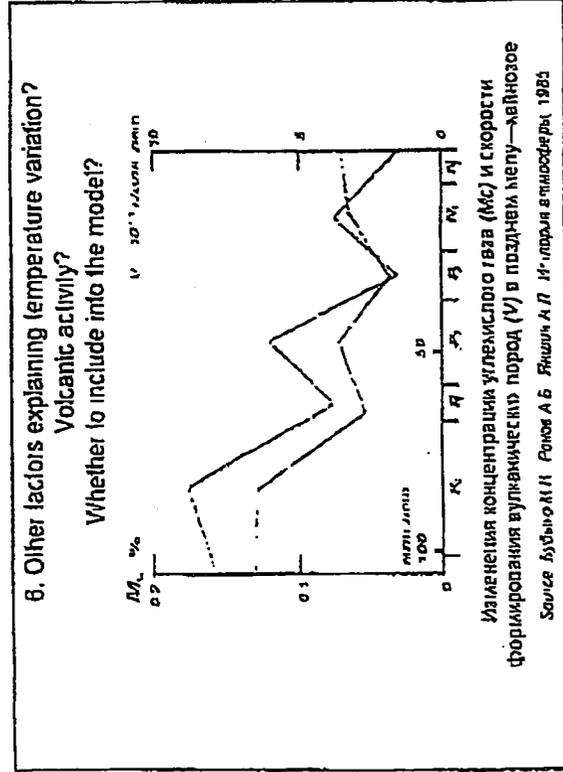
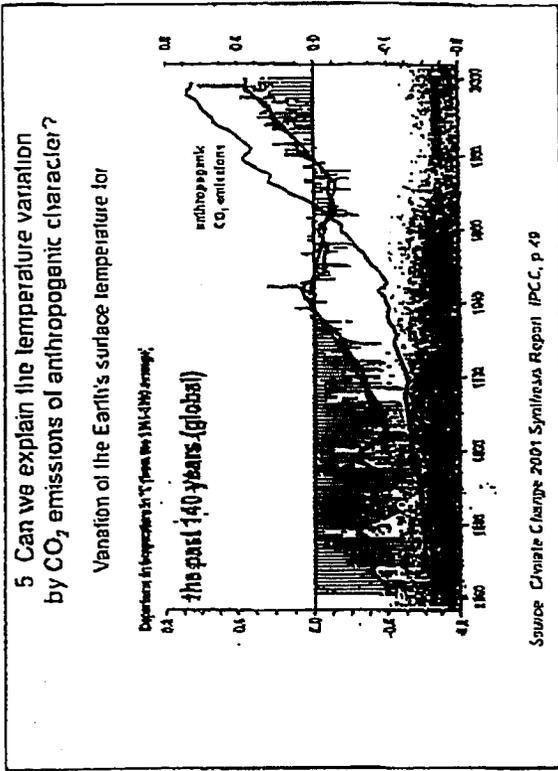
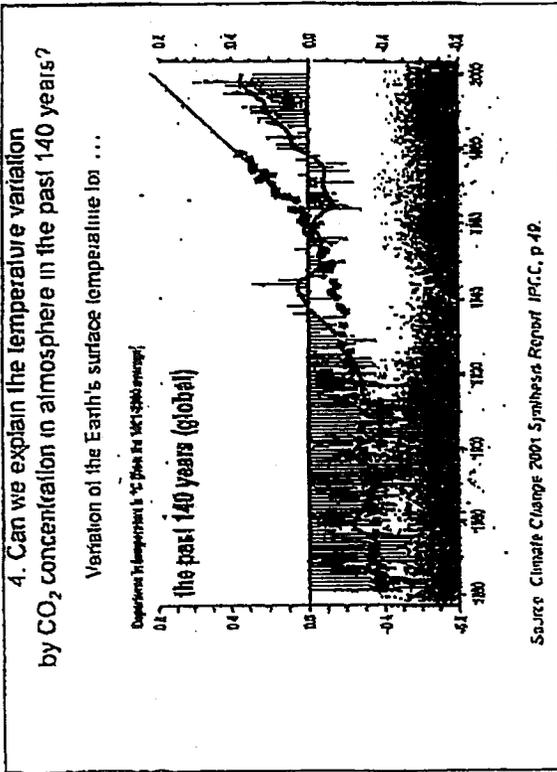
Source: World Bank, World Development Indicators 2002

3. Can we explain the temperature variation by CO₂ concentration in atmosphere in the past 1000 years?



Source: Climate Change 2001 Synthesis Report, IPCC, p. 49

ANTROPOGENIC FACTOR IN GLOBAL WARMING:
SOME QUESTIONS



**Answers to the questions raised by A.N. Illarionov during his talk
«Anthropogenic Factors in Global Warming: Some Questions» at the World
Climate Change Conference 2003 prepared from material of the IPCC Third
Assessment Report (TAR) by attending scientists¹ and presented to the
conference by Bert Bolin, chair emeritus of IPCC:**

- 1) *What was the actual level of Carbon Dioxide concentration in the atmosphere in 1980-2000?*

Atmospheric CO₂ concentrations rose from 338 ppm in 1980 to 368 ppm in 2000. Values for the period 1980 to 2000² are based only on direct measurements of air samples, whereas the data before 1980 are from direct measurements as well as proxy data, i.e. ice core and firm data.

- *) *The forecast is alarming. What is the basis for it?*

The projections for the temperature rise for the 21st century as shown in Fig. 9-1b³ are generated by sophisticated models and are based on a well defined set of socio-economic assumptions about the development of technology and society⁴. It is to be noted, that the latter assumptions contain no explicit measures such as the Kyoto Protocol to limit the anthropogenic emissions of green house gases.

- 2) *What are the parameters of the model of temperature anomalies? And how were they derived? Why are there such fluctuations in anthropogenic forcing observations?*

The figures⁵ refer to temperature changes calculated by complex climate models. Such models make use of many parameters. The models are able to reproduce the manifestation of the current climate and are validated as described and summarized in TAR (2001). Fig. 2-4a) shows the climate that is computed if only natural effects such as solar variation and volcanic eruptions are included, but ignoring any effects from anthropogenic emissions. Fig. 2-4b) shows the climate that is computed if only anthropogenic GHG and aerosol emissions are included, but ignoring any natural effects. Fig. 2-4c) shows the climate if natural and anthropogenic effects are both included. Since only the last figure succeeds in fitting the actual observations, human induced increases in atmospheric GHG concentrations must be included in an explanation of the observed warming. These findings were important to warrant the following carefully derived statement: "There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities" (SYR TAR, 2001)⁶.

¹ Among those scientists were Bert Bolin (Sweden), Andreas Fischlin (Switzerland), John M.R. Stone (Canada), Michel Petit (France), David Warrilow (UK), Jean-Pierre van Ypersele (Belgium), Michael Grubb (UK) and numerous others

² Fig. 9-1a SYR TAR, 2001 resp. WGI TAR SPM, 2001 Figs. 2a & 5b

³ SYR TAR, 2001, p. 140 resp. WGI TAR SPM, 2001 Figs. 1b & 5d

⁴ SR ES, 2000

⁵ SYR TAR, 2001 Fig. 2-4, p.50 resp. WGI TAR, 2001 Fig. 12-7

⁶ p.51 and WGI SPM TAR, p. 5

- 3) *Can we explain the temperature variation by CO₂ concentration in the atmosphere in the past 1000 years?*⁷

Atmospheric concentrations of GHGs such as CO₂ and CH₄ remained relatively constant during preindustrial times⁸. The temperature changes during the preindustrial period are due to natural effects such as solar variations, volcanic eruptions, and random climate variability. The uncertainty in the data increases the further back in time we go, as earlier data are based on indirect measurements such as widths of tree rings. Direct temperature measurements date only from around 1840. The six warming periods shown on the graph⁹ never exceeded a change of ~0.3°C and never extended beyond half of a century. On the other hand the increase during the last century is ~0.6°C and has lasted for most of the 20th century. As has been pointed out above (Q2), the course of temperature during the 2nd half of the 20th century can not be explained unless the effects of anthropogenic GHGs emissions are included as well¹⁰.

- 4) *Can we explain the temperature variation by CO₂ concentration in the atmosphere in the past 140 years?*¹¹

Yes, given we include other effects as well. The response of the climate system to the smooth increase in CO₂ is a slow and considerably delayed increase in the global mean temperature. The observed variations during the last 140 years is not only brought about by anthropogenic emissions, but also by natural effects such as changes in the solar radiation, volcanic eruptions, and natural random variability (see also answers to Q2).

- 5) *Can we explain the temperature variation by CO₂ emissions of anthropogenic character?*

Yes, given we include natural effects as well. It is crucial to understand the inertia of the climate system, i.e. emissions are not reflected instantly in changes of the temperature. Thus we can expect further changes from emissions we have already made. The temperature variation as measured in the last 140 years is a combination of the influence of several factors, both natural and anthropogenic (see also answers to Q2).

- 6) *Other factors explaining temperature variation? Volcanic activity? Whether to include into the model?*

Yes, natural effects such as volcanic eruptions have, are, and will be of importance for any explanation on climate variation. They have been considered by the scientific community and were thus included in the analysis of past temperature anomalies as reported in the TAR. Moreover, this analysis not only included volcanic eruptions, but also those from

⁷ Speaker highlights six periods of nearly linear warming (6 regression lines) since year 1000 and emphasizes that those periods do not correlate with any significant changes in atmospheric CO₂ concentrations.

⁸ SYR TAR, 2001 Figs 2-3, p 49 and Fig. 9-1a, p. 138

⁹ see previous footnote

¹⁰ conf. TAR, 2001

¹¹ The speaker emphasizes decrease in temperature during 60's and 70's, and stresses the point that these decreases do not correspond with the concurrent increase in CO₂ emissions.

changing solar activity in addition to the human-induced effects from anthropogenic emissions of CO₂, CH₄, and sulfate aerosols¹².

7) *Other factors explaining temperature variation? Long-term cycles? Whether to include into the model?*

The temperature variations over thousands of years are primarily the result of changes in the Earth's orbit and other natural factors like solar activity. But, these changes do not explain the recently observed, rapid warming and are expected to be insignificant in the next several thousand years.

8) *Is the modern "global warming" unique in the last 5'000 years?*

Yes. The extent, magnitude, and rate of change as observed during the last 140 years appears to be unprecedented. The figure¹³ shows data on isotope ratios, which require further computations to derive temperature estimates. Moreover, they are from Greenland and are not representative for the global picture. In this context it is worth-noting that "the projected rate of warming is very likely to be without precedent during at least the last 10'000 years" (SYR TAR, 2001)¹⁴.

9) *Can we achieve the Kyoto protocol targets, providing the share of the Annex 1 countries' (include. Russia, not include. USA and Australia) in the world's CO2 emissions is rapidly falling?*¹⁵

Yes, given the most recent emissions¹⁷, this appears still to be possible. With or without the US and Australia the declining share of industrialized countries in global emissions is not relevant for complying with the targets of the 1st commitment period because these are defined only for industrialized countries¹⁸. Longer-term global reductions would of course require additional countries to be included for subsequent commitment periods.

10) *And finally: How much does it cost?*

This depends on the level of stabilization aimed for and must be seen relative to the size of the concurrent GDP¹⁹. For instance, stabilization at 550ppm²⁰ reduces global GDP in 2050

¹² Incidentally, climate models can now reproduce the climatic effects from the Pinatubo eruption in 1991, which strengthens their credibility.

¹³ Grootes *et al.*, 1993

¹⁴ Q 3.1 p. 61

¹⁵ To answer the question, we reformulated it in the following way: *Can we achieve the Kyoto protocol targets while Annex 1 countries' (including Russia, but not US and Australia) aggregated emissions' share is rapidly falling?*

¹⁶ The speaker draws attention to the fact that the aggregated CO₂ emissions stabilize or decline anyway, i.e. without mitigation, while only a limited number of Parties responsible for only ~30% of total global emissions have reduction commitments.

¹⁷ By 2000 alone for CO₂ the Annex I emissions were by at least 5% below the base year levels and without US and Australia by more than 15%.

¹⁸ The aggregated Kyoto Protocol target is 5% reduction relative to base year (typically 1990) emission levels as described in Art. 3.1.

¹⁹ compare Fig. 7-3, p. 119 with Fig. 7-4, p. 120 from SYR TAR, 2001

United States of America
Environmental Protection Agency

II.P.5

A FAX FROM:

| | |
|---------------------------------------|-------------------------------|
| TO:
Deb Fiddelke
CEQ | FAX NO:

202-456-2710 |
| SUBJECT: | |
| FROM:
Lesley Schaaff | PHONE NO:

202-564-6567 |
| OFFICE: | FAX NO. FOR: |
| COMMENTS: | |
| DATE and TIME:
10/06/2003 02:08 PM | NO. OF PAGES
20 Total |

October 3, 2003

Governor Michael O. Leavitt
State of Utah
Office of the Governor
Salt Lake City, Utah 54114-0601

Dear Governor Leavitt;

Attached please find questions that several members of the Environment and Public Works Committee would like to resubmit to you for further consideration. It is my hope that timely, expanded responses will help to move the confirmation process forward.

Thank you in advance for your prompt responses. Should you have any questions, please contact my staff director, Ken Connolly, at (202) 224-8832.

Sincerely,

James M. Jeffords

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

Senator Jim Jeffords:

Pre-Hearing Questions

1) In 1987, the EPA released a report entitled "Unfinished Business: A Comparative Assessment of Environmental Problems." If the Agency and other partners, including the National Governors Association, participated in subsequent similar efforts in 1990 and 1992 to rank the involuntary risks facing public health and welfare and the environment. Based on your current knowledge of environmental problems, what do you perceive as the top five involuntary environmental health risks faced by the American public?

Response:

I believe that EPA should rely upon sound science, as well as risk assessment, to establish priorities for environmental protection. If confirmed, I look forward to hearing what EPA's scientists and experts advise in this regard before articulating any preconceived list of priorities for the Agency.

7) Do you think it would make sense to extend the attainment deadlines for areas that will be designated as nonattainment for the new 8-hour ozone standard for some time beyond the current attainment deadline for areas that have not yet attained the 1-hour ozone standard?

Response:

I am not familiar with all of the issues that may need to be considered in responding to the question of whether or not it is appropriate to extend the deadline. If confirmed, I would welcome the opportunity to learn more on this topic.

Post-Hearing Questions

35) What are the possible effects of global warming on Utah?

Response:

Climate change science is complex and projections based on hypothetical models vary widely.

37) As was discussed briefly in the hearing, your state air director represented Utah's position in April 2003 on the Administration's final and proposed New Source Review rules as "making the situation worse." You suggested that his concerns were met or addressed in the final rule issued on August 27, 2003. However, since the final rule on routine equipment replacement was not much different from the proposal, it is not clear how those concerns were addressed. Please explain how Utah's stated concerns were satisfactorily addressed in the final rule.

Response:

The Utah Department of Environmental Quality's (DEQ) primary concern was that New Source Review needed to be improved. DEQ's March 2003 suggestions were all directed to the Annual Maintenance, Repair and Replacement Allowance (AMRRA) proposal. The comments were received and properly weighed; all were addressed.

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

Senator Max Baucus:

1) Mr. Leavitt, do you commit to putting the clean-up of Libby, Montana, at the very top of your priority list at EPA, if you are confirmed? Do you commit to completing the clean-up in Libby as soon as possible?

Response:

While I do not know the details of EPA's Superfund priorities yet, my understanding is that the Libby cleanup is a high priority for EPA. I support continued priority attention to an effective and efficient cleanup.

2) Mr. Leavitt, will you promise to come to Libby as soon as possible after you are confirmed, preferably this fall? Will you promise to sit down with Libby residents, with EPA staff on the ground and hopefully, even Paul Peronard, so that you will understand personally what is needed to finish EPA's job in Libby?

Response:

I hope to visit many of the priority Superfund sites around the nation, as I have those in Utah. There is no better way to learn the issues than to sit down with the people most concerned at the local level.

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

Senator Bob Graham:

5) On your official web site as Governor of Utah, you say we should reward results, not programs. As noted earlier, many of EPA's programs are operating without meaningful standards. In light of this, how would you measure results? How would you set goals?

Response:

Results must be tied to the quality of our environment. If the air is cleaner, the water purer, the land better protected, then we have made progress. I believe we must continue to improve our ability to measure environmental results.

7) On your official web site as Governor of Utah, you say environmental progress, and public confidence, improve where there is agreement on the underlying facts, but that policy decisions can still be made if agreement cannot be reached on those facts. This Administration has repeatedly omitted, prevented the collection of, or skewed data that should be part of the environmental debate (e.g., buried research on the Senate's clean air plan, sanitized EPA's report on the environment, prevented EPA from discussing perchlorate pollution, etc.) What steps will you take to ensure that data collections are not manipulated or curtailed for political purposes, and data is widely shared after it is collected?

Response:

I believe it is EPA'S duty to provide the public with critical health information that is reliable and accurate as soon as that information is gathered and validated.

11) I would like to get some further information regarding your involvement with the Legacy Highway in Davis County, Utah. It is undisputed that the wetlands that the highway would affect have national if not international importance to wildlife, being the most significant refuge for migratory birds in the interior west. Throughout the process of proposing the highway, and up to the present as far as I can tell, you were at odds with the EPA concerning your compliance with federal law, including the Clean Water Act. While the EPA focused on legal deficiencies, you focused on pitching the Legacy Nature Preserve. The EPA's prior positions and the federal courts have agreed, that proposals should first avoid wetlands, then minimize impacts to wetlands, and as a last case resort, mitigate if necessary. This interpretation of the law seems very different from your desired result, justification of the impacts of your project based on its mitigation package. In fact, your rationale that a project is acceptable if the mitigation is - acceptable turns the Clean Water Act on its head. It puts mitigation ahead of avoiding impacts to wetlands and minimizing impacts. During every phase of the highway's permitting process, the EP A was at odds with your position and you attempts to justify impacts based on mitigation.

They rated it environmentally unsatisfactory (which is the EP A's lowest rating of a study) and constantly requested compliance with the law. Just prior to the State of Utah receiving a 404 permit, documents show that Bill Yellowtail, a regional administrator with the EPA, warned you about the "legal liability" of your proposal. The Tenth Circuit indeed concluded that your highway proposal failed to consider a less damaging route and failed to minimize impacts. Instead, it found that you violated the Clean Water Act with your proposal that would put a four-lane highway with a large right-of-way-the length of an entire football field-right through some of the nation's most important wetlands. How can the public trust that you will uphold the Clean Water Act as EPA 's administrator when your past behavior shows a disregard for that law and that is at odds with EPA's own interpretation of the law?

Response:

It is and has always been my intention to ensure that the Clean Water Act is enforced fairly and equitably.

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

14) On January 15 of this year, EPA announced that it would consider a proposed rule that would limit the scope of the Clean Water Act. By the EPA's own estimates some 20 million wetlands across the country -an area as large as Maine -have already lost Clean Water Act protection under the guidelines they issued to field staff in January. Countless numbers of wetlands, streams, ponds and other water bodies could be severely impacted if this rulemaking goes forward. In fact, during an initial public comment period 39 out of 42 state agencies that filed comments made clear they oppose proceeding with such a rule-making. Given your advocacy for giving the states more environmental authority where possible, how would you handle a situation such as this where a strong majority has stated it does not want to lose existing federal protections? What actions would you take in regard to this rule?

Response:

Over the last 11 years, I have had many opportunities to work on issues related to wetlands. Wetlands are a very important part of a natural heritage that we must protect. I have not been fully briefed on the issue, but if confirmed, I commit to you to consider the input from states and others in determining how to proceed on this issue.

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

Senator Joe Lieberman:

Pre-Hearing Questions

3) The General Accounting Office has reported that the recent rules amending the exceptions to the New Source Review program were based on only anecdotal evidence provided by industry groups. (United States General Accounting Office, Clean Air Act: EPA Should Use Available Data to Monitor the Effects of Its Revisions to the New Source Review Program (GAO-03-947 August 2003)). Even Assistant Administrator Jeffrey Holmstead acknowledged this fact. Do you support a rulemaking such as 's that is not based on any empirical analysis? Would you support a rulemaking under your supervision that was based only on anecdotal evidence?

Response:

As noted previously in response to Senator Jeffords' question #6, I am aware that there are differing perspectives concerning the recent changes made by EPA to the New Source Review program. If confirmed, I would like to understand in greater depth and detail the data, issues, and perspectives associated with this complex subject. I look forward to the opportunity to be briefed in detail on the NSR changes.

5) In the FY2003 Omnibus Appropriations legislation, the EPA was instructed to commission a study regarding the environmental and public health impacts of the New Source Review reforms that were finalized on December 31, 2002. If this study shows that the rule will increase pollution and/or have negative environmental and public health impacts, will you rescind the rule?

Response:

Please see the response to Senator Lieberman's question #3, above.

7) Under the New Source Review reforms, states are permitted to implement their own rules if they are more stringent than the Federal rule. How would you define "more stringent than the Federal rule?" What burden would the states need to satisfy to implement their own rules?

Response:

Please see the response to Senator Lieberman's question #3, above.

9) Currently, some thirteen states plus local air districts in California have petitioned the court to overturn the New Source Review rule finalized on December 31, 2002. In addition, various states have vowed to or have already filed legal challenges against the August 27, 2003, final New Source Review rule on "equipment replacement." Should the states succeed, and the rules be deemed invalid, will you vow to reform New Source Review by requiring all grandfathered facilities to install modern pollution controls within the next ten years as recommended by NAPA?

Response:

Please see the response to Senator Lieberman's question #3, above.

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

30) A decision to discount the value of future benefits, and, if so, the decision to apply a steep discount rate, can very significantly reduce the estimated benefits of certain regulations, like many environmental regulations, that prevent long-term ecological harm and long-latency diseases like cancer. Discounting generally has much less downward effect on the calculated benefits of safety regulations, which tend to prevent more immediate injuries.

(A) Do you agree?

(B) What are your views about whether to discount and what discount rate to use?

(C) How would you apply discounting to regulations that protect future generations?

(D) Should we apply a method for calculating benefits under which the preservation of the lives of our children, counts for less than preserving our own lives?

Response to A-D:

If confirmed, I will review EPA's current policy regarding discounting before making a decision. This is a very complex issue, and I look forward to learning more about it.

31) EPA has traditionally placed an equal value on all lives saved by environmental protection. However, in connection with its "Clear Skies" initiative and other recent regulatory proposals, the administration applied the so-called "senior discount" factor, an alternative valuation methodology under which the lives of Americans seventy and over were calculated to be worth 37 percent less than the level at which all other, younger Americans were valued. Using this cynical tool, the Administration was able to diminish the apparent benefit of life-saving environmental regulations. After a firestorm of criticism from angry seniors, Christine Todd Whitman announced on May 7, 2003, that EPA would no longer use this valuation method. "The senior discount factor has been stopped," Administrator Whitman was quoted as saying. "It has been discontinued, EPA will not, I repeat, not, use an age-adjusted analysis in decision-making. (Katharine A. Seelye and John Tierney, "EPA Drops Age-Based Cost Studies," The New York Times, May 8, 2003)

(A) Will you likewise commit that, if you are continued as EPA Administrator, EPA will not use an age-adjusted analysis in decision-making?

Response:

I am not familiar with Governor Whitman's basis for that statement, but I will review the policy, if confirmed.

(B) What is your opinion of the use of the Quality-Adjusted-Life-Year (QALY) to measure the benefits of air pollution controls?

Response:

I am only generally familiar with cost-benefit analysis and "therefore, I am not familiar with the particulars of this issue. I look forward to learning more before articulating a position.

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

32) Currently, the EPA is considering a rulemaking that would redefine waters of which the Federal government has jurisdiction. (See January 15, 2003 Federal Register Advance Notice of Proposed Rulemaking (48 Fed. Reg. 1991)).

(A) What is your position on this rule?

(B) Are you aware that it would significantly diminish Federal jurisdiction over water pollution?

(C) How do you respond to the recent analysis prepared by U.S. EPA Region 3, which purportedly finds that the rulemaking change being considered could result in more than one-half the streams and one-third of all the wetlands in the mid-Atlantic region losing Federal Clean Water Act protections, according to an article in the September 5, 2003, Washington Post?

Response to A, B, and C:

I have not reviewed the advance notice of proposed rulemaking. If confirmed, I will have an opportunity to review the notice, including the analysis to which you refer.

49) The Department of Defense has proposed exemptions from the Clean Air Act, the Superfund Law, and the Resource Compensation and Recovery Act for military readiness and training activities. Do you support these exemptions? Why?

Response:

I am not familiar with the specific details of this legislation. I support the efforts of the Department of Defense in training our military men and women to do their job, and I am sensitive to the training needs of the military at training ranges. There are, however, many operational and cleanup activities ongoing at Utah military installations that require regulatory oversight in order to assure appropriate protection of public health and the environment.

Post-Hearing Questions

2) As you know, EPA is in the process of implementing the new 8-hour ozone standard. But some cities still haven't met all of the requirements for implementing the pre-existing 1-hour standard. Do you favor requiring these areas to promptly comply with all of their unmet obligations under the 1-hour standard?

Response:

I am not familiar with all the issues that may need to be considered in responding to the question. If confirmed, I would welcome the opportunity to learn more about this issue.

3) In the last several years EPA has used a "downwind extension" policy to weaken clean air requirements in cities like Washington, Atlanta, Baton Rouge, Beaumont-Port Arthur and Dallas, Texas. As a result, these cities have missed clean air deadlines and have less protective pollution controls than in cities that actually receive more transported pollution—cities like Baltimore, Philadelphia, New York, and Chicago. Four U.S. Courts of Appeals have declared the policy illegal. Will you pledge that you will not seek to resurrect this policy?

Response:

I understand the complications of the transport of air pollution across city borders and look forward to learning more about this important topic. I will work to promote clean air policies that protect public health in all U.S. cities and to ensure that EPA's policies are consistent with applicable legal requirements.

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

13) Just recently, there has been leaked to the press an amnesty deal, in which EPA "covenants not to sue" huge animal factories for violations of the Clean Air Act the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA" or "Superfund" law). In exchange for EPA's commitment not to sue, CAFOs will pay \$500 in penalties and will contribute \$2,500 toward a monitoring fund. Any CAFO (or smaller animal feeding operation) may achieve immunity from EPA prosecution by paying these monies. Will you support this amnesty deal?

Response:

I am not familiar with the specifics of these negotiations. If confirmed, I will review them and decide based upon the merits of the issues.

14. According to the National Academy of Sciences report in June 2001—a report requested by the Bush White House:

"Greenhouse gases are accumulating in Earth's atmosphere as a result of human activities, causing surface air temperatures and subsurface ocean temperatures to rise. Temperatures are, in fact rising. The changes observed over the last several decades are likely mostly due to human activities, but we cannot rule out that some significant part of these changes are also a reflection of natural variability."

(A) Do you agree that global warming is occurring?

(B) Do you agree that the 1990s were the hottest decade on record?

(C) Do you agree that most of the warming that has occurred over the last 50 years is due to human activities?

(D) Do you agree that global warming threatens water resources?

(E) Do you agree that global warming threatens vulnerable ecosystems, such as alpine meadows?

Are you aware that the concentration of CO₂ in the atmosphere has risen more than 30% since the beginning of the industrial revolution?

Are you aware that CO₂ and other greenhouse gases remain in the atmosphere for decades to centuries, and that as a result, we will be stuck with elevated concentrations of these gases for hundreds of years?

Even if there are uncertainties about the precise impacts from continued emissions growth, isn't it dangerous to let CO₂ concentrations keep rising to levels that haven't been seen in the whole history of the human race?

(F) Are you aware that power plants are the largest source of CO₂ emissions in the U.S., responsible for 40% of U.S. CO₂ emissions?

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

(G) Are you aware that automobiles are the second largest source of CO2 emissions in the U.S., responsible for about 20% of U.S. CO2 emissions?

Are you aware that the administration's voluntary "goal" for CO2 emissions would allow emissions to continue rising by 14% over the next decade—the same rate that they increased during the last decade?

Response:

I am aware of the June 2001 National Academy of Sciences report, but I do not have sufficient knowledge of the science to provide definitive answers to this series of questions. The President has proposed a series of immediate, deliberate actions that I fully support: establishment of a national goal on the reduction of greenhouse gas intensity, substantial increases in research, partnerships within the international and industrial sectors, new agriculture sequestration projects, and focus on new technologies. These steps will enable us to see reductions in greenhouse gas intensity from the work of the international, industry, and agriculture sectors in the short term, while increasing research and developing new technologies for the intermediate to long term. By initiating this work, we will be better able to inventory reductions from sectors and technologies.

16) The report on this year's ozone hole is particularly disturbing in light of the Bush administration's slackening efforts to protect the ozone layer. The U.S. is seeking huge exemptions from the Montreal Protocol—a Senate-ratified treaty that the U.S. helped negotiate for methyl bromide, the most dangerous ozone-destroying chemical still in widespread use. Are you aware that the U.S. exemption request for methyl bromide would reverse the phase-out of this chemical and increase the amount produced in the United States?

Response:

I am not familiar with all of the issues associated with the use of methyl bromide. I look forward to learning more about this area and the United States' efforts to implement the requirements of the Montreal Protocol. I will work to uphold all international agreements and protect the ozone layer.

17) Why should the U.S. government reverse the phase-out of methyl bromide and allow production of this very dangerous chemical to increase again?

Response:

I am not familiar with all of the issues associated with the use of methyl bromide. I understand the phase-out of methyl bromide is an important issue, and I will work to find alternatives to chemicals such as methyl bromide.

20) As EPA Administrator you would have responsibilities as a custodian of the nation's wetland resources. The EPA has the power to veto permits issued by the Army Corps of Engineers for the dredging or filling of wetlands, an authority seldom exercised. Are there any circumstances under which you, as EPA Administrator, would veto a proposed permit in order to protect wetlands? If so, please describe the principles that would guide your veto decision.

Response:

As I mentioned during my confirmation hearing, as a Governor over the course of the last 11 years I have worked on many different occasions on issues related to wetlands. Wetlands are a very important part of a natural heritage that we want to protect. If confirmed, I would look at the facts of any particular case and the options available to me to determine a course of action.

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

Senator Barbara Boxer:

Question Regarding EPA Rollbacks

Governor Leavitt, the EPA's charge is to protect public health and the environment. However, during this administration's tenure there have been over 300 environmental and public health rollbacks, more than 15 of them originating from the EPA. I attached a list of all of the EPA rollbacks.

Are you aware of all of these rollbacks?

Please comment on each separate rollback -whether you view it as protecting public health and the environment and why or why not -prior to this committee's voting on your nomination.

Response:

The list of actions you have provided covers a wide range of Agency actions taken and statements made over the past two years. Many relate to complex issues on which I have not been fully briefed. I regret that I cannot at this time assess your characterization of these as "rollbacks." I reiterate that, if confirmed, I intend to fully enforce the laws enacted by Congress and to protect the health, safety and environment of the American people.

Questions Regarding Transparency and Public Participation in Decision-Making

Issue #1: Friday Night Rollbacks

Governor Leavitt, I strongly believe that one of the cornerstones of a democracy is the openness and transparency of our government and its decision-making. Do you agree with me on this?

I also believe strongly that part of openness and transparency in a democracy requires that a democratic government inform the public of its policy decisions and the rationale for them? Do you agree with me on this?

I also believe that a key part of informing the public in a democracy is ensuring that the government provides the public and its representatives with sufficient information to evaluate a decision, or a policy. Do you agree with me on this?

Governor Leavitt, are you aware that this administration has a pattern of issuing environmental and public health rollbacks late in the afternoon on a Friday or on the eve of a holiday? Are you familiar with the 5 late Friday EPA rollbacks from 2003?

Are you aware that when this Administration does issue these rollbacks, it is invariably to the media and it is hours or days later before elected representatives are provided with the details of the rollback? Do you think that such behavior reflects a respect for Democratic principles?

Are you aware that the EPA changed a 25-year old policy prohibiting transfers of land contaminated with PCBs until it the PCBs were cleaned up? Are you aware that the EPA did not notify the public about this policy, and that it is known only because it was leaked to a reporter? Governor Leavitt, is that good democratic governing in your mind?

Are you aware that this administration frequently refuses to provide back up documentation for the public health benefits it claims in these rollbacks, such as its New Source Review decisions?

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

Do you think that such behavior reflects a respect for Democratic principles?

Governor Leavitt, will you commit to us here and now that you will stop the pattern of announcing rollbacks late on Fridays and on the eve of holidays?

Governor Leavitt, will you commit to us here and now that elected representatives will be provided with information on regulatory decisions on a time scale that allows us to meaningfully assess, and inquire into the meaning and the rationale of the decision prior to the close of business?

Governor Leavitt, will you commit to providing this information to all Senators and Representatives at the same time, regardless of their party affiliation?

Response:

Like you, I believe that it is important to have an open and transparent government. I am not familiar with the past practice that you reference, but I look forward to working with the Committee and will make every effort to provide assistance and information in a timely and comprehensive manner.

Issue #2: Answering Congressional Requests

There is a large backlog of congressional requests from the past two years where EPA has failed to be sufficiently responsive. Most notably, EPA has refused to provide information on the environmental impacts of the proposed and finalized changes to the New Source Review program under the Clean Air Act and information on its Superfund program. The NSR changes made by the Bush Administration in December and August alone put thousands of lives at risk. The Superfund slowdown has also placed untold numbers of people needlessly at risk. Clearly, this EPA has abandoned its long-standing practice of providing non-partisan, unbiased analysis for Congress, particularly Committee chairman and ranking members.

Governor Leavitt, are you aware that this committee was twice on the verge of subpoenaing EPA for information; once on Superfund issues and once on NSR issues?

Governor Leavitt, will you pledge to work with Congress and honor our requests for information?

Will you pledge to present to the public and its representatives all of the analysis underlying EPA's decisions during your tenure?

Response:

It is my desire to have a very straightforward, candid and open relationship with the Committee and other Members of Congress, as I indicated during the hearing and in our private meetings. There have always been tensions between branches of government, but my record as Governor in working hard to communicate is solid, and it will be my objective to be as responsive to you and to the people of this country as possible.

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

Question Regarding Superfund:

Issue #2:

According to a Resources for the Future Report to Congress, EPA has catalogued more than 43,000 potentially contaminated sites in its Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). More than 41,000 of these sites have had a preliminary assessment to determine whether cleanup is necessary. However, only a small number, approximately 1200 have been placed on the National Priorities List (NPL), which was intended to be the official register of the nation's most hazardous waste sites. NPL sites are the focus of the Superfund program as they are the only sites that EPA can fund under the Trust Fund.

From 1998-2001, EPA proposed listing an average of 38 sites each year and actually listed an average of 32. In 2002, EPA proposed 9 sites and listed 19, and in 2003, EPA proposed 14 sites, and listed only 8.

Governor Leavitt, what will you do to ensure that the tens of thousands of sites not on the Superfund NPL are cleaned up?

Response:

In my experience, the states clean up far more contaminated sites than does the Federal government under the Superfund program. I support the continued partnership between the Federal government and state and local governments in addressing the cleanup of contaminated sites.

Issue #4:

Governor Leavitt, the administration frequently asserts that site clean ups underway are more complex sites than previous site clean ups. However, EPA has been cleaning up extremely complex sites for decades and I am unaware of any evidence indicating that the complexity of sites has changed radically over the last two years. After the EPW hearing on the President's budget request for 2004, I asked the following questions, which have yet to be fully answered by the Bush administration:

- Please provide a detailed explanation of what constitutes a more complex site.
- In addition, please summarize the information that your Agency has received that indicates such a radical change in site characteristics over the last two years and provide that documentation to this committee.

Governor Leavitt, please provide me with a full and complete response to these questions, along with data to back up your response.

Response:

I am not familiar with the specific findings of the Agency on the complexity of site clean-ups, nor am I privy to the information EPA has received over the last two years on this matter. If confirmed, however, I commit to looking into your data request.

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

Issue #5:

Governor Leavitt, in April 2002, Marianne Horinko, Assistant Administrator for the Office of Solid Waste and Emergency Response testified before this committee under oath. During that testimony she indicated that if the Fund were not "robust", the Administration would revisit reinstating the polluter fees. Her exact quote was:
 "I'm certainly not ruling out the tax. The Administration this fiscal year felt that in the 2003 budget we still had a relatively robust funding source in the remaining trust funds, that we did not have to propose the Superfund tax, but we will look at that again in 2004 and see if we need to revisit that position."

The Trust Fund will be broke as of October 1st of 2003, with the full costs of cleanups shifting to taxpayers. As you know, this was exactly reversed in 1995, when taxpayers paid 18 percent of the costs and polluters 82 percent.

Governor Leavitt, as the Trust Fund clearly is no longer "robust", do you believe that the administration should reinstate the polluter fees? If not, please explain why not.

Response:

I support the polluter pays principle, which I understand is the Administration's position. Parties responsible for the toxic waste at Superfund sites are responsible for cleaning them up. If confirmed, I commit to continuing a strong EPA Superfund enforcement program.

Issue #7:

A recent GAG report confirmed that the Superfund trust fund, which once contained over \$3.6 billion, will be entirely exhausted in just a few weeks. The full costs of cleaning up abandoned sites and for program administration—roughly \$1.5 billion—will now need to be borne by the general treasury. Do you agree with the Administration that polluters should not pay the cost of cleaning up abandoned sites, and that instead such costs should be foisted on the average taxpayer?

Response:

As I have stated above, I am committed to the effective and efficient use of funds for sites listed on the NPL to protect human health and the environment. My first priority is for polluters to pay, using Superfund's liability system. I support the President's proposal to increase funding for Superfund, but I do not at this time have a position on any pending or proposed legislation concerning the source of funds.

Questions Regarding PCB Land Transfer

Governor Leavitt, do you believe that government has an obligation to inform the public and its representatives when it changes its positions on issues critical to public health and the environment?

Response:

I strongly believe it is EPA's duty to provide critical health information to the public that is reliable and accurate as soon as that information is gathered and validated.

Questions Regarding Perchlorate

Issue #2:

Governor Leavitt, would you find it acceptable to delay issuing such a standard after decades, and hundreds, of studies confirming the dangerousness of a chemical?

Response:

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

I am not familiar with the specific circumstances to which you allude. Every American deserves to have clean drinking water and, if confirmed, I will work to address drinking water issues as expeditiously as appropriate under the circumstances.

Issue #4:

As you may know, the State of California has what could be described as one of the most serious groundwater pollution problems caused by the rocket-fuel chemical perchlorate. The perchlorate pollution, which is impacting tens of thousands of my constituents in the San Bernardino County area, has forced several water providers to shut down or restrict use of approximately 20 groundwater production wells. More recently, several water emergencies have been declared in the area because of the pollution. The perchlorate pollution is located in an area formerly occupied by, among others, a Department of Defense weapons storage facility. The perchlorate contamination is causing severe water supply problems and is having serious negative consequences on economic growth and development in San Bernardino County.

A delegation of representatives from some of the impacted water providers will be coming to Washington on October 8, 2003, to meet with DOD Assistant Secretary John Woodley to develop solutions to this water crisis.

Governor Leavitt, I believe it is important for the new EPA Administrator to play a key role in developing a solution to the emerging perchlorate crisis. If you are confirmed, would you be willing to meet with representatives of the affected water providers on October 8, 2003, to assist in the review of the conditions associated with the perchlorate pollution and to develop solutions to this water crisis?

Response:

I will commit to working with the dedicated professionals at EPA to take appropriate action.

Questions Regarding Mercury

Issue #1:

Mercury is a potent neurotoxin that has made its way into the food supply, contaminating fish and posing a risk to people and wildlife that consume fish. Most at risk are children and the unborn. According to the Centers for Disease Control and Prevention (CDC), one in 12 women of childbearing age (8 percent) has blood mercury levels exceeding the EPA safe level for protection of the fetus. This translates into approximately 320,000 babies born annually in the United States at-risk for neurodevelopmental delays. 44 states nationwide have issued advisories warning people to limit consumption of fish caught from inland lakes, streams and coastal waters.

EPA is under a court order to enforce the Clean Air Act and issue a rule by December 31 of this year to reduce toxic mercury emissions from coal-fired power plants, which are the largest unregulated source in the nation. Because mercury is a potent toxin that, like lead, causes developmental delays in children at even tiny quantities, the Clean Air Act requires EPA to set standards based on the maximum amount that can be technologically reduced. The analysis was promised to be delivered to an advisory committee made up of industry, conservation groups, and others, but the meeting to review the data was cancelled and they still haven't received it.

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

According to a New York Times report, EPA cancelled the technical analysis needed to produce a credible mercury rule after EPA's top air official consulted with the White House on how to proceed.

Governor Leavitt, will you ensure that the agency moves with all necessary speed to do this necessary analysis in time to produce the rule this year? Will you ensure that EPA shares this analysis with its advisory group in a timely manner to solicit their input?

Response:

I am not familiar with all of the issues associated with this question, and, if confirmed, I would welcome the opportunity to learn more about the issue.

Questions Regarding States' Rights

Issue #1:

Governor Leavitt, are you a supporter of states' rights?

Governor Leavitt, under the Clean Air Act, California has been granted the right to regulate air pollution in many areas, as long as its regulations are at least as stringent as the federal governments'. The Clean Air Act also allows other states to opt into California's regulations. As EPA Administrator, would you strongly support this aspect of the Clean Air Act?

Governor Leavitt, would you as EPA Administrator support a rider that preempted states' rights under the Clean Air Act to more stringently regulate air pollution?

Response:

As a Governor for 11 years, I respect the role of states. I recognize that, as Administrator of the EPA, my perspective would be somewhat different in that my new role would be a national one. I believe that we need National standards, but understand very well that you have to have room for "neighborhood" solutions.

Question Regarding Standards in Decision-Making

Governor Leavitt, this EPA has frequently relied on anecdotes when rolling back environmental regulations, such as New Source Review and PCB-land transfers, but requires years, if not decades, of rigorous scientific study when considering whether or not to regulate to protect public health and the environment, such as a safe drinking water standard for perchlorate and the regulation of carbon dioxide emissions.

Do you believe that regulations rolling back public health and regulations protective of public health should be subject to the same rigorous scientific standards? What do you believe these standards should be? If you do not believe that the same standards should be applied in both types of cases, please explain why not.

Response:

The quality of science that underlies EPA's regulations is vital to the credibility of EPA's decisions and ultimately the Agency's effectiveness in protecting human health and the environment. I am committed to ensuring that sound science plays a prominent role in all EPA regulatory decisions.

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT**Senator Tom Carper****Question Regarding Request for Updates on the Status of Several Rules/Regulations/Actions that We Understand Are Forthcoming from the EPA**

Governor Leavitt, as is always the case the EP A is working on a number of rules and proposals. To name just a few, they include the new 8-Hour Ozone Standard, the PM 2.5 Standard, the Non-Road Heavy Duty Diesel Rule, Air Toxics from Mobile Sources. Attached is a list of eleven rules or regulations that I understand are forthcoming from the agency.

2. Will you commit to seeing that each of these proceed forward without delay?

I suspect a new EP A administrator would get an update on these as part of your "orientation" to the job, and I ask that you share that information with us on the committee.

Response:

The status of each of the deadlines for the topics set forth in your request is not known to me. If confirmed, I look forward to learning more about each of these important areas and the actions EP A is undertaking to ensure its obligations under the Clean Air Act are met in a timely manner. I am committed to providing cleaner air for the public and will make every effort to ensure that EP A meets applicable deadlines.

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

Senator Hillary Clinton:

1) On Wednesday, January 15, the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (Corps) published in the Federal Register an Advance Notice of Proposed Rulemaking (ANPRM) raising questions about the jurisdiction of the Clean Water Act (CWA). Simultaneously, they released guidance to their field staff regarding Clean Water Act jurisdiction over certain non-navigable, intrastate, isolated waters.

Both the ANPRM and guidance represent attempts to remove federal protection from many waters (including many creeks, streams, small ponds, and wetlands) that have been protected by the Clean Water Act for 30 years.

Do you support the proposed rulemaking to limit the types of streams, wetlands, ponds or other waters that are covered by the federal Clean Water Act? If so, which waters do think should not be regulated by the EPA or Corps?

Response:

Over the last 11 years, I have had many opportunities to work on issues related to wetlands. Wetlands are a very important part of a natural heritage that we must protect. I have not been fully briefed on the issue, but if confirmed, I commit to you to consider the input from states and others in determining how to proceed on this issue.

3. As Governor of Utah, have you supported any proposal to restrict the scope of the Clean Water Act's jurisdiction, or allow states to determine which waters should be protected by water quality standards?

Response:

The state is implementing the Clean Water Act. However, this question maybe interpreted to apply to numerous actions or statements regarding the Clean Water Act. During my tenure as Governor, state agencies have made recommendations regarding various aspects of the Clean Water Act and its reauthorization. Both Western Governors Association and National Governors Association have adopted resolutions regarding various aspects of the Clean Water Act and its reauthorization. The State of Utah has been involved in plans to construct the Legacy Highway and in the judicial challenge to the project; aspects of the Clean Water Act are under consideration in this matter. The State is from time to time named as a party in a lawsuit, based in part on some aspect of implementation of the Clean Water Act.

9) Under this administration, enforcement of many laws administered or overseen by EP A has declined.

If you were administrator, what specific steps would you take to address this problem? Can you pledge to this Committee that enforcement levels--number of civil and criminal cases filed, and size of penalties--would be restored to previous levels? Would you support bringing the number of EPA enforcement staff back to previous (FY 2001) levels?

Response:

As I said in my confirmation hearing, if there are those who avoid or evade the requirements of the law the full weight of the EP A will be brought to assure their compliance.

RESUBMITTED QUESTIONS TO GOVERNOR LEAVITT

13) A strong and effective Office of Children's Health Protection (OCHP) is vital to ensure that the EPA's standards and regulations protect children from environmental health and safety hazards. I believe the OCHP, in collaboration with public health agencies such as the Centers for Disease Control and Prevention, can be instrumental in improving the EPA's research efforts to evaluate the impacts of environmental exposures on children's health and to develop the strongest and best protective measures.

Do you agree with these statements? How do you see the role of OCHP in your EPA? Will the OCHP continue to report directly to you? The Office has been without a permanent director since March 2002, and substantial new responsibilities have been placed in it without commensurate increases in staff and resources. How will you address these problems?

Response:

I agree that EPA needs to take a leadership role to protect children from environmental hazards. I am not familiar with the responsibilities of the office you mention or the particular situation with its director or staff resources. If confirmed, I look forward to learning more about this office and its efforts to protect children's health.

Hannegan, Bryan J.

From: Hannegan, Bryan J.
Sent: Tuesday, October 07, 2003 11:18 AM
To: Fitter, E. Holly
Cc: Fiddelke, Debbie S.; Cooney, Phil; Towcimak, Natalie
Subject: Re: LRM 196 - CCSP response to NRC recommendations

Minor comments: See attached.

Bryan Hannegan
CEQ



bh edits re CCSP
response to N...

-----Original Message-----

From: Towcimak, Natalie
Sent: Wednesday, October 01, 2003 4:54 PM
To: Cooney, Phil; Hannegan, Bryan J.
Cc: Fiddelke, Debbie S.
Subject: FW: DOC Draft Response on How the CCSP Strategic Plan Addressed NRC Rept Recommendations

I assume you will coordinate comments? Due Tuesday 10/7 by 10:00 am.
Thanks-Nat

-----Original Message-----

From: Fitter, E. Holly
Sent: Wednesday, October 01, 2003 4:28 PM
To: Wuchte, Erin; Lyon, Randolph M.; Radzanowski, David P.; Neyland, Kevin F.; Fairweather, Robert S.; Irwin, Janet E.; Erbach, Adrienne C.; Mertens, Richard A.; Reilly, Thomas; Kulikowski, James M.; Foster, Gillian J.; Smith, Bryan R.; Mertens, Steven M.; Lobrano, Lauren C.; Peacock, Marcus; Rossman, Elizabeth L.; Newstead, Jennifer G.; Nec Lrm; Cea Lrm; Joseffer, Daryl L.; Kaminski, Amy; Rothenberg, Jason; Ceq Lrm; dodlrs@osdgc.osd.mil; energy.gc71@hq.doe.gov; epalrm@epamail.epa.gov; CLRM@doc.gov; lrm@hhs.gov; ocl@ios.doi.gov; usdaobpaleg@obpa.usda.gov; lrm@nsf.gov; NASA_LRM@hq.nasa.gov; state-lrm@state.gov; dot.legislation@ost.dot.gov; GC.OMB@usaid.gov; Ostp Lrm; Olsen, Kathie L.; justice.lrm@usdoj.gov; Cooney, Phil; wilkinsc@ogr.si.edu
Cc: Jukes, James J.; Burnim, John D.
Subject: DOC Draft Response on How the CCSP Strategic Plan Addressed NRC Rept Recommendations

[REDACTED]

Attached is the incoming request , the DOC cover letter, and an enclosure containing the responses to the NRC Report recommendations.

Please provide any comments by 10:00 Tuesday 10/7. Thanks.

- ccspenclosure.wpd << File: ccspenclosure.wpd >>
- ccspincoming.TIF << File: ccspincoming.TIF >>
- ccspoutgoing.wpd << File: ccspoutgoing.wpd >>

004254

LRM ID: EHF196

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
Washington, D.C. 20503-2004

Climate Change Science Program
Rep. Ehlers

CEQ 005390

Wednesday, October 1, 2003

LEGISLATIVE REFERRAL MEMORANDUM

TO: Legislative Liaison Officer - See Distribution below
FROM: John D. Burnim (for) Assistant Director for Legislative Reference
OMB CONTACT: E. Holly Fitter
E-Mail: E._Holly_Fitter@omb.eop.gov
PHONE: (202)395-3233 FAX: (202)395-5691
SUBJECT: COMMERCE Letter on How CCSP Strategic Plan Addresses NRC Report Recommendations

DEADLINE: 10:00 AM Tuesday, October 7, 2003

In accordance with OMB Circular A-19, OMB requests the views of your agency on the above subject before advising on its relationship to the program of the President. Please advise us if this item will affect direct spending or receipts.

COMMENTS:

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095-Office of Science and Technology Policy - Maureen O'Brien - (202) 456-6037
JUSTICE

Cooney, Phil

From: Harlan Watson ([REDACTED]) (B)(6)
Sent: Wednesday, October 08, 2003 9:41 AM
To: tallyt@state.gov; reifsnyderda@state.gov; turekianvc@state.gov; Cooney, Phil; Peel, Kenneth L.
Subject: Fwd: FW: Illarionov



FW: Illarionov

Note: forwarded message attached.

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Hannegan, Bryan J.

From: Farrell, Amy L.
Sent: Wednesday, October 08, 2003 10:09 AM
To: Adele Morris (E-mail); Dobridge, Christine L.; Hannegan, Bryan J.; Gayer, Ted
Cc: Nickerson, William; Mark.FRIEDRICH@hq.doe.gov; Margot.Anderson@hq.doe.gov
Subject: 1605b Issues

All -

AM

Thanks,
Amy



Version 10
issues.doc (28 KB)



1605(b) General
Guidelines v10...

- Version 10 issues.doc

004259

Hannegan, Bryan J.

From: Ahsha Tribble [ahshadc@yahoo.com]
Sent: Wednesday, October 08, 2003 10:28 PM
To: Hannegan, Bryan J.
Cc: Ahsha.Tribble@noaa.gov
Subject: Ehler's Comments

Bryan,

[REDACTED] nd to
[REDACTED]
[REDACTED]
[REDACTED]

Thank you,
Ahsha

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004253

Cooney, Phil

From: Peel, Kenneth L.
Sent: Wednesday, October 08, 2003 10:47 AM
To: Cooney, Phil
Subject: text of Illarionov's press briefing

clean version

004

004289

TITLE PRESS CONFERENCE WITH PRESIDENTIAL ECONOMIC ADVISER ANDREI ILLARIONOV
[ALEXANDER HOUSE, 14:12, OCTOBER 3, 2003]
DATE Friday, October 3, 2003

TEXT

Moderator: Good day, ladies and gentlemen. Today we -- by we I mean the Kremlin.org network -- are holding a press conference with Andrei Nikolayevich Illarionov, an economic adviser to the President. The topic of our press conference is "Russia and the Kyoto Protocol: What Is to Be Done?"

This question interests us very much because, and I am afraid I will express almost everybody's view, everything we read about this, that has been said or written by supporters and opponents, and especially by supporters, because with opponents everything is simply they only have to maintain the status quo, so all this offers very vague arguments.

Usually we are offered different explanations of why we should sign the Kyoto Protocol. And all these explanations are so enticing, one can't help asking why there are so many of them. Just yesterday a very respected person who works in a very respected energy company tried to explain to me why it was so important for Russia to join the Kyoto Protocol, that it was an international club of very important countries. Is it a club, is it a way to save mankind, or is it a way for Russia to earn? What it is? I hope we will find this out today.

Illarionov: Thank you, Gleb Olegovich for your introduction. Before we start talking about the content of our meeting, I would like to make a few introductory remarks. First of all, as it turned out, the topic of the Kyoto Protocol, the topic of ratification by Russia of the Kyoto Protocol or the topic of non-ratification of the Kyoto Protocol or the topic of postponement by Russia of the Kyoto Protocol ratification has become so politicized lately that frankly speaking I can't think of any other topic recently that would have stirred such intensive and emotional debates.

Just two days ago I was at one of the press conferences devoted to the ratification of the protocol and I witnessed so much emotion on the part of the people who attended that I hadn't seen since the end of the 1980s or at least since October 1993. It's not quite usual for such a calm life, political and economic and intellectual, we have had over the last few years. Relatively calm, of course, at least compared to the emotions that I could see several days ago.

So my first wish in our meeting today is that this meeting should not have a nature of political statements. We do not pursue any goals here. The only task we are facing is to have a calm and balanced discussion of problems that are confronting the country, the choice that has been offered to the country, the choice that has been the subject of very intensive intellectual and political fighting. Despite all this, I will try to have as calm and balanced a discussion as possible in order to try to figure out what is happening.

Just a few very general words about the Kyoto Protocol, although I am sure the people in this room know this. The Kyoto Protocol was prepared and signed in December 1997 in the city of Kyoto. This is why it is called the Kyoto Protocol. I have here this small book called "The Kyoto Protocol: the Convention on Climate Change." The Convention on Climate Change was adopted by the United Nations.

But it is not the convention that is a legally binding document but the Kyoto Protocol. The essence of the protocol is that -- of course, it's a legal document that is based on a certain theory, on a certain concept.

CEQ 005402

According to this concept, the global climate warming that has been happening over the last few decades and maybe even centuries is caused primarily, if not entirely, by human activities, mainly by industrial and agricultural activities, as a result of which a considerable amount of carbon dioxide is discharged into the atmosphere. Carbon dioxide accumulates in the atmosphere and increases the greenhouse effect that has always existed or at least it has existed for the last several hundred million years, but carbon dioxide has increased this effect. As a result, the temperature rises, the climate changes. This leads to serious cataclysms, both short-lived and long-lasting, such as the melting of snow, ice, the rise of the Ocean, severe draughts in one place and devastating floods in another place, and so on.

In order to prevent such scenarios, it was proposed to restrict the discharge of carbon dioxide obtained through human activities. Certain quotas were introduced for countries that are members of the so-called Appendix 1 to the Convention on Climate Change. Here is the text of the Convention both in English and Russian. And there is Annex 1 that lists these countries. As a result of different negotiations, these countries arrived at a decision that, using the year 1990 as the basis, the emission of carbon dioxide and several other gases that are called greenhouse gases and that account for a relatively small share of all greenhouse gases, including methane, lower nitrogen oxide, should be reduced for about 5 percent for all Kyoto Protocol member-states as a whole. These quotas differed for other members of Appendix 1.

The European community countries and the European community as a whole decided to reduce greenhouse emissions by 8 percent. Japan, if I am not mistaken, decided to reduce them by 6 percent, Russia by about 100 percent of the 1990 level, Iceland by 101 percent, Australia by 110 percent. That is, the quota for each country was negotiated separately. This list included most but not all industrialized countries and several, but not all, countries that used to be called and are still called economies in transition. The overwhelming majority of countries in the world are not parties to Appendix 1 and therefore they have not undertaken to reduce greenhouse gas emissions or to reduce carbon dioxide emissions.

In accordance with the provisions of the protocol, the protocol may enter into force only after it has been signed by not less than 55 countries that are jointly responsible for the emission of not less than 55 percent of greenhouse gases, the countries that are included in Appendix 1. Such a provision can be found in many international documents. By now if the information is correct that I have received on September 29, naturally the protocol was signed or rather was opened for signature in 1998, it was signed in 1997 and it was opened for ratification in 1998.

Since then, I think on September 29, the treaty was ratified by 105 states and it follows from this that not all countries have ratified the instrument and correspondingly, out of those have ratified the agreement, there are countries that assume certain commitments to restrict and limit the emissions of carbon dioxide, there are also countries that do not pledge themselves to such restrictions and which remain without any restriction, without any ceilings. They can increase their emission of hothouse gases in whatever way they please to.

Now about ten countries or maybe more have yet to ratify the agreement. 2.5 years ago, in March 2001, the United States through the lips of President Bush declared that the United States would not ratify the protocol and they go out of it. A little later a similar statement was released by the government of Australia. And considering that the share of the United States

in the aggregate emission of hothouse gases according to data of 1990 was quite substantial, over 36 percent, then correspondingly, the US exit from the protocol put the entire construction into question -- can the agreement take effect?

A situation developed as a result of which the protocol could take effect only if, considering the countries that have already ratified and those who have not ratified and quit it, the agreement may enter into force, rather the protocol may enter into force only when it is ratified by Russia. And only Russia and no other country --even if all other countries which would like to ratify the protocol have done it, but it is not done by Russia, then under this document the agreement may not be able to enter into force.

The fact that Russia from March 2001 has found itself in such a role, the role of the keeper of the key to the Kyoto Protocol, in the past 2.5 years a big part of the discussion devoted to the Kyoto Protocol has this way or the other been related to Russia. Will Russia ratify the agreement? Won't Russia ratify the agreement? When will it ratify? And so on.

Considering that the discussion about the Kyoto Protocol and its ratification was extremely acute, was acute between, on the one hand, the Europeans, Japanese and Canadians and, on the other, the United States, as a result of that discussion which among other things was happening in the city of Genoa at the meeting of the heads of state of the Eight in June 2001, the Russian President Putin who was present at that meeting submitted a proposal after two hours of intensive discussion on these issues when the parties were exchanging opinions about the pluses and minuses, the pros and cons of ratifying the protocol -- after that Vladimir Putin made a proposal to try to resolve the outstanding issues that existed at a special conference, a world conference on climate change.

The proposal was supported by all the participants of the Eight and this position was registered in the final document. And now 2.5 years later, in September this year, there began in Moscow and is now into its fifth day to be closed today -- the world conference on climate change. Without Articles of Association doubt it is quite an outstanding phenomenon. It is just a third world conference on climate change. The previous ones were held as follows: the first one took place 24 years ago, the second - 13 years ago and now the third. And it is naturally the first that the conference is being held in Moscow.

Also for the first time, and also on a proposal of our President, the conference is attended not only by scientists but also by officials from governments, statesmen, businessmen, representatives of informal or nongovernmental entities. This was done on purpose, so that everybody has the opportunity to hear out any viewpoints and that everybody would have an opportunity to express one's own point of view to see which position is considered to be the most reasonable.

So, in the course of five days such a conference is happening and today it is being completed. As you know, on Monday, at the opening of the conference our President addressed the conference and although the conference is devoted to questions of climate change, this topic is much more broader than the topic of the Kyoto Protocol, nevertheless, as was to be expected, but not to that extent, very many among the conference participants for some reason waited for the opening statement of the President to announce that Russia will ratify the Kyoto Protocol or this has already been done or is being done, something like that.

As you know, the President decided not to do this. He did not do it and he said a different thing. He said that we are being urged to ratify the Kyoto Protocol and it is already not the first day they do it and they insistently urge us to do it, we are hearing the arguments in favor of ratifying the Kyoto Protocol. We also hear other arguments. We would like to attentively analyze all information. The Russian government is engaged in analyzing the protocol and the possible consequences of the ratification. And when the analysis is completed, then the decision will be taken in accordance with Russia's national interests.

One must say that among a part of the participants in the conference the statement caused a sense of regret, to put it mildly, and several delegates intervened in the sense that a magnificent opportunity was lost to ratify the Kyoto Protocol. Why wasn't the opportunity used? To tell you honestly, this is a somewhat strange approach.

It is necessary to make such a preface because I think over the past two months our mass media and in the public area there was an intensive and heated discussion of the question related to ratifying the Kyoto Protocol.

I would also like to make my small contribution to this discussion and to formulate several questions and several positions which in my opinion represent a broad public interest. I will say more: two days ago, at the same world conference on climate change I had been given the floor and I intervened and some of these questions were asked there. Ten questions were asked concerning the scientific foundation of the Kyoto Protocol.

Colleagues from the international panel of experts on climate change -- the English abbreviation is IPCC -- well known to specialists, got together and jointly they drafted answers to those ten questions and this morning one of the IPCC leaders, Professor Bolen (sp.--FNS) from Sweden acquainted the participants of the conference with answers to those ten questions.

I just want to show you a book. It's a sort of a synthesis report that was prepared by the Intergovernmental Panel on Climate Change, which is the intergovernmental group of experts on climate change. The book summarizes the main conclusions on climate change made by scientists. The research makes three volumes of special studies. This is just a brief overview. And there is a special chapter for those who do not understand complex calculations, that is for those who make political decisions. It explains why the problem of global warming exists, what role human activities play in this process. And I would say it makes an attempt to provide a scientific basis for the Kyoto Protocol.

Professor Bolen (sp.?) is one of the leaders in this team of authors, he also spoke and gave answers to these questions. I can tell you that unfortunately none of the formulated questions was answered. One of the reasons for that may be that there was not enough time and there was not enough information at hand. However the questions that were formulated were not raised yesterday. They have been on the agenda for at least the last 20 years at all such conferences, meetings and seminars of climate scientists and economists who discussed global warming and the role of human activities in this warming and climate changes.

The fact that there are no answers to these questions does not mean that these questions will not be answered tomorrow or the day after tomorrow.

We hope, and we reached such an agreement, that our honorable colleagues will try to prepare appropriate answers and make them known not only to us but to the world and the international scientific community to make this knowledge

public domain so that everyone could study and analyze it and make his own conclusions.

What I am going to offer you after such a long introduction is only part of the questions that were formulated one more time in the last 20 years two days ago, some of the questions and observations that were formulated today, and some additional information. In order to draw a picture, and I think that climate experts will find it extremely simplified, and they may be true, but for those who do not deal with climate changes every day, it will give them a rough idea of how the mechanism of climate changes works.

In the last several years when the attention of the people was riveted mainly to the human impact on climate, but the problem of climate changes is much broader and much bigger. Roughly speaking, if we focus on climate changes, by which we mean the change of temperature and mainly precipitation, we can single out a group of factors that affect climate and that can be divided into two big groups. These are natural factors, of which the most important are solar radiation and changes in solar radiation, the reflecting ability of the surface of Earth, for which there is this serious scientific word albedo and which changes depending on the nature of the surface, whether it is covered with woods or it is ploughland, or it is barren rocks, ice or ocean.

Each of these surfaces has its own reflecting capability. The change of the surface changes the reflecting ability, the albedo, and therefore the amount of solar radiation that Earth received from the Sun and then reflects back into the outer space. And the third, very important, element is the concentration of carbon dioxide in the atmosphere, which serves as a cushion that causes the greenhouse effect. There are several sources of carbon dioxide emissions. Carbon dioxide is generated by Earth's mantle regularly and constantly. This is the main source. Carbon dioxide is discharged by volcanoes and oceans. Carbon dioxide is produced by decomposing organic substances and by animals when they breathe. People also contribute to the concentration of carbon dioxide especially by burning fossil fuel for the generation of electricity and heat, and in industry. Cement production produces a lot of carbon dioxide. And of course, carbon dioxide is produced by breathing. So, these are human factors. All these factors cause climate changes. Climate changes affect the lithosphere, the cryosphere, the atmosphere, the hydrosphere and the biosphere and everything that is called human society: economy, social relations, politics. There is a well-known example when riots, revolutions, uprisings occurred in lean years, people died and so on.

There is a lot to discuss, and very much has been written about this. In the discussion on the Kyoto Protocol, -- the Kyoto Protocol addresses only one group of factors that are called human factors. It does not deal with the breathing of people yet but it deals with restrictions on the emission of carbon dioxide generated by burning of fossil fuel and industrial activities, and how this affects the climate. It is a general approach. The impact of other factors is left outside, on the periphery. And I think it shouldn't be because the study of relevant literature showed that the share of carbon dioxide emissions caused by human activities in the overall carbon dioxide emission caused by both natural and human factors is growing and reached 8 percent at the end of the 20th century. In other words, this means that if we take a step back, we will see that these two factors account for 8 percent. Carbon dioxide emissions caused by natural factors make up 92 percent of the total. But these are not addressed by the Kyoto Protocol. But natural factors also play a role in this process -- among these three key factors: solar radiation, the reflecting ability of Earth, or albedo, and -- so, if we try to build a climate model and assign a certain share to a certain factor, human factors should get their share. But they cannot account for more than 8

percent. They will be actually smaller than that because each of these factors has its share. You may ask me, what are the shares of other factors? I addressed this question many times to climate scientists, and different people gave me different answers. This is a subject of a broad discussion. But I did not get a single answer although such an answer probably exists.

But I would like to draw your attention to the following. At least we must have in mind that although the emission of carbon dioxide of antropogenic nature exists, and is growing, it indeed increases the concentration of carbon dioxide in the atmosphere and its contribution is roughly like this.

Further on, we are passing over to the basic essence of the concept, the theory under which the temperature in the recent period, especially falling on the 20th century, I mean the rise in temperature, cannot be explained by anything else except man-made activities. Strictly speaking, this is the basis of the theory and all these data are taken from this book and there are indications as to where the data were taken.

Like any person who looks at this picture, one immediately gets to ask several questions: these changes in the temperature or even the basic changes on the planet, and mind you, in Northern Hemisphere -- it is not coincidental that here we have the Northern Hemisphere and if we trace here such a trend, more or less constant, here we will get a big growth.

If we take a look at data on the Northern and the Southern hemispheres, we don't get such a picture, and there is also a trend of rising temperature, but it is much less expressed. If you take a look at the data about the trend of temperature of the ocean that have been obtained in recent time, the trend shows a strictly horizontal straight line, there is not even a hint of an increase. If one analyzes data on temperature measurements in the near-Earth atmosphere at the level of 1.5-2 kilometers - received from satellites -- they indicate a weak tendency toward lower temperature.

Now we kind of leave this side with different measurements, and we take only one part -- the part used in this report -- a certain increase in temperature in Northern Hemisphere. But if it is there, then the question arises: so they say this is connected with human activity. Then naturally, this question arises: the other temperature fluctuations over the past thousand years have also been connected with anthropogenic activity the bulk of which is the burning of organic fuel -- meaning coal, oil, gas and so on. And we have discovered quite a number of examples over the past thousand years which, by the angle inclination and by scale are comparable with the period we had in the 20th century. But honestly, it is quite difficult to say how the active anthropogenic activity of burning organic fuel was noted.

Moreover, it is not difficult to see that after a period of higher temperature there were observed quite notable sharp reductions in temperature. It was apparently assumed that at that period the anthropogenic factory ceased to operate and then for 30, 40, 50 and sometimes even 100 years mankind ceased to burn organic fuel.

This is obviously causing very big doubts, I mean such an interpretation, and this interpretation gets more profound if another graph is super imposed on this one, taken again from that book. It is shown by dots here.

It is a graph showing concentration of carbon dioxide in the atmosphere obtained with different methods also over the past 1,000 years. So when the graphs are examined separately and incidentally they are given in this and in other books, then the question of the extent to which they match each other just does not arise.

If however, one still tries to super impose one graph on the other, then naturally the question arises as to what extent these two graphs are correlated. To what extent it is possible to say that the changes of this indicator are to some extent the functions of the change of this factor.

Anyone who engaged in correlations or regression analysis, even in their simplest form, will naturally express some minor doubts about whether it is possible to draw such a conclusion. Naturally, quite a number of scientists in climatology are also expressing doubts over the possibility of this kind of interpretation of the data.

We can take a shorter period -- 140 years. This is how this was done in this book which also says that over the past hundred years, namely during the 20th century, the temperature on the planet increased by 0.6 degrees and then it is added in brackets -- plus- minus 0.2 degrees. Considering that the accuracy of measurement may change. And they say that 0.6 degrees rise in temperature in a hundred years is so colossal, so dramatic that there can be only one explanation -- the impact of anthropogenic activity, the impact of carbon dioxide which is man-made. If you take this period of the 20th century and try to analyze it not from 1990 to 2000 but try to divide it into three sections that differ by their trends. Actually we can do it a little later. And let us put on this graph the same line of concentration of carbon dioxide in the atmosphere and let us take a look at the extent to which these lines correlate with one another and what can one say about the strength of such a statistical link.

An additional problem is one that is shown here in the appearance of a trend line, indicated in blue here. The fact is that in this book there are no data on carbon dioxide concentrations over the past 20 years -- from 1980 to 2000. Instead of such dots that indicate the actual observations, instead of the dots there is the traced line of the trend, relying on about the last 10-12 points and it plays a role sort of representing the existing observations of the concentrations of carbon-dioxide in the atmosphere.

This question appears to be all the more strange because on all other gases, methane, nitrogen-oxide, there are some detailed actual data of observations over the past 20 years. However, for some reason there are no data concerning carbon dioxide. All participants in these discussions, the authors of the report asset that there are such data and in general it is hard to imagine that such data do not exist. But for some reason the data were not included in the book and instead of the data by traced the a line of the trend, a straight line of the trend, thanks to which it is possible to say that at this section between the end of the 1960s and the end of 1970s and 1980s there exists a certain likeness between this trend line and the temperature line.

However, there is no confidence that everything has been accurately done from the viewpoint of science and many scientists asked questions. Finally, we can take the same graph make out trends by individual sections of the 20th century. Let us take the section of 1970s; from mid-1970s to 2000; from the mid-1940s to the mid-1970s and say from the 1910s of the 20th century to the middle of the 1940s.

It is not hard to see that in principle these three lines of the trend reflect three different types of behavior, or three different characters and if on this same graph we super impose a graph of the emission of anthropogenic carbon-dioxide, then the question of how much these lines correlate emerges with special acuity.

While up to this period of time -- from the mid-1970s to 2000 -- it was possible speak about some link between the emission of anthropogenic carbon-dioxide with a rise in temperature; here there seems to be a certain similarity observed although one cannot say whether there is a link or not, if there is a cause-effect connection or not. At least we can't say what causes what.

As for the period from the middle of the 1940s to the middle of the 1970s, it remains a big mystery because anyone who knows the history of mankind since the middle of the 20th century knows that it was a period, that it was a golden period, a golden era of economic growth, when the highest rate of economic growth was achieved by most countries and it was a period of the highest economic growth of the world economy, it was an era of cheap oil, when oil, coal and gas were extracted and burned at an incredible rate. During these 30 years the extraction and consumption of oil increased six-fold. And we can only imagine how much carbon dioxide emissions increased.

But what is happening to the atmosphere? The temperature of the atmosphere is not rising. Moreover, there is a clear trend, which has been around for 30 years, and over these 30 years the temperature at the surface of Earth dropped by 0.2 degrees, which is quite a lot. Therefore, not for a year or two, but for 30 years diametrically opposite tendencies developed: carbon dioxide emissions caused by human factors continued to increase considerably, as we can see on this curve, and at the same time the climate was cooling off and the temperature was decreasing. How can this be explained? No explanations have been produced in the last 20 years in any discussion or at the latest conference.

And finally, this period. We see a rather considerable increase in temperature that is comparable in terms of speed and angle of inclination with what we have been seeing in the last 25 years. At the same time, in the period from 1913 to 1944-1945, a period when two world wars, the Great Depression, several global economic crises occurred, a period when the biggest portion of the world economy was stagnating, carbon dioxide emissions caused by human factors increased very slowly. At the same time, now the temperature is growing as fast as it did in the last 25 years. How can it be explained that carbon dioxide emissions grow rapidly in the period of slow economic development and economic stagnation, and decrease in the period of rapid economic development and growth? Unfortunately, we have so far not got any answer to this question.

And this raises several more questions. For example, climatology has come up with a rather decent connection between volcano activities and the concentration of carbon dioxide. It's quite decent for our level of knowledge and for our limited scope of knowledge and measurements. In fact, when volcanoes erupt, they discharge a large amount of carbon dioxide into the atmosphere, its concentration increases, and this results in an increase in the temperature of the air. These curves are based on data covering a period of more than 100 million years. It's a rather long period of monitoring. It's not 20 or 25 years, as we saw in the previous charts. And here, too, we see a rough semblance. There is a number of studies that show that volcanoes are one of the main source of carbon dioxide emissions into the atmosphere.

However, this factor was not included in the climate model that was represented here. As a result, one of the most important factors, which has been recognized by all climatologists, was not incorporated into the model which provides the basis for the Kyoto Protocol. The question is why? Unfortunately, no answer was given to this question either.

Now, there are even more interesting factors. For example, this chart represents changes in temperature at the surface of Earth over a rather long period of time. Not millions of years but for more than 400,000 years. What is so good about this period of time? It is good because it is a period of time when people were already around. According to the latest studies, people appeared about four million years ago, at least the first signs of human presence date back to that time, and 400,000 years ago people existed in large groups, and there already began to appear the first signs of human society. By the end of this period the first protohuman societies came into existence.

So, what do we see here? We see that temperature changed considerably during this period from the peak of minus 8 and minus 10 and even minus 12 degrees, the relative average for the period, to plus 2 and plus 3. In other words, the fluctuation amounted to 12- 15 degrees. Over what period did this occur? It's a period of about 1,000 years. If we extrapolate these numbers into our times, we will see that -- the amplitude of fluctuations shows that they by far exceed the fluctuations we have seen in recent years. As far as the rate of temperature increase or decrease is concerned, they considerably -- they certainly don't differ from what has been happening in recent years. Moreover, the climate has never been constant either and will never be constant. It changes all the time.

It is obvious that during this period of time fossil fuel was not burnt in more or less considerable amounts. And this means that these fluctuations were caused by other factors that are not related to human activities. The question is what are these factors? And if there are any cycles, whether they are connected with solar radiation or something else, it is necessary to understand which factors affect the situation and why, and can't they be included in the model. Unfortunately, this book, *The Climate Model*, on which the Kyoto Protocol is based, does not include these factors either.

And the last thing. It is necessary to say that at the moment we are in the upward part of this curve. This may to some extent explain why the temperature on the planet is rather high or is said to be rather high. And yet, the temperature is lower than the peaks registered in the previous era. It needs to be said that people already existed during this entire period, they survived at high temperatures and they surely survived at the temperatures that are marked here as peaks. This is interesting information for discussion on whether humankind will be able to survive an increase in temperature by one degree or several degrees.

We gradually reduce the period. At first we had 100 million years, then we reduced it to 400,000 years, and now let's see what happened in the last 5,000 years. This point here represents the year 2000 A.D. And this point here is the year 3000 B.C. It's easy to see that the current increase in temperature, it is marked here, does not really differ much from increases that occurred around 800th or 900th years A.D., or 200th and 100th years B.C., around the year 1300 B.C. It's easy to see that these peaks were much higher than the ones we have now. And this is a period when people not just existed but when rather developed human societies existed.

Suffice it to say that this is a period when the Ancient World had reached its highest point. Everything we know about that period happened then, when the temperature of air at the surface of Earth was higher than it is now.

Reports say that grapes were harvested in England in ancient times, and then around 800th or 900th years B.C. when Eric the Red discovered Greenland, it was all green and that is why it was called that way and there is nothing of this kind today.

This is fertile ground for reflections, food for thought. And the question is: what factors, evidently no longer anthropogenic in nature because in this time nothing was observed similar to what is emitted by mankind into the atmosphere today. Nevertheless, the temperature was much higher.

These questions were also perennially put, but so far there are no answers. Further on, there emerge a number of questions related to a not so distant history or rather the current history: it is what is happening today or maybe over the past 40 years. These are data of the World Bank and we see that in absolute volume the emission of carbon dioxide at least from the middle of the 1990s is stabilizing and probably shows a weak tendency toward reduction. Now it is difficult to say but at least the data related to highly developed countries or countries of average development -- register a weak indication of reduction.

If we take a look at the indicator of the emission of carbon dioxide per capita we will see that on the whole in the world the indicator has stabilized roughly from the middle of the 1970s. In highly developed countries it begins to diminish from the mid-1990s. I beg your pardon, I find it a little difficult to speak ... In the weakly- and average-developed countries the tendency also indicates a certain reduction.

If one talks about the specific "load" of carbon dioxide per one dollar GDP produced, at least over the entire period of observation for which there are the appropriate rows of statistical data based on the information of the World Bank, one observes a sufficiently sustainable tendency of reduced emission of carbon dioxide for the entire world economy. And even steeper tendency is for highly developed countries.

As regards the weak- and average- developed countries, there was a rising tendency which continued roughly from the middle of the 1980s, and from the mid-1980s the tendency attested already to a drop.

We then pass over directly to the document for which we have gathered here, namely the Kyoto Protocol. It transpires that the document is not universal, it does not embrace all the countries of the world, it imposes no restrictions on the emission of carbon dioxide for all countries of the world. And we see how a change occurred between the two groups of countries. The countries of Annex 1, which undertook the commitments and ratified the agreement, took the commitment and abide by them, and the rest of the world.

In 1990s the countries of Annex 1 produced 7.5 billion tons of carbon dioxide while the rest of the world -- 12.8. In 1999 the Annex 1 countries produced less carbon dioxide and indeed they are doing some work to reduce the discharges of carbon dioxide while other countries, not committed to the obligations of the Kyoto Protocol, are increasing it. As a result the gap between those who undertook the commitment and those who did not take commitments, has notably increased.

This can be seen, among other things, also on the graph here that shows the specific weight in emission of carbon dioxide of Annex 1 countries in the world emission. In 1968 those countries were responsible roughly for half of the world emission of carbon dioxide; in 1990 -- on the order of 37 percent; and finally, in late 1990s it was slightly less than 31 percent of the world emission of gas -- this is if you count it with Russia; and if you count it without Russia then the indicators will be slightly lower, of the order of 24 percent at the present time.

It is clear that this has nothing in common with 55 percent and naturally the question arises to what extent such a protocol and such international law can be effective in attaining even the goals that were proclaimed. If countries which are responsible only for less than one-third of world emission do everything possible and even impossible to cut on the emission, while the countries responsible for 70 percent of discharges will not do it and will continue to increase the emission, it is not hard to see that in this case the goals of the Kyoto Protocol in principle cannot be attained because these countries are not bound by anything and one must say that they do not intend to be bound by these restrictions.

The next question that was also actively discussed -- related to the price of the activities in order to meet the demands stemming from the Kyoto Protocol at later stages of development -- for the economies of different countries of the world and for the entire world economy. This graph is somewhat complicated but I will try to explain it. You can see here slightly pale posts -- this is the cumulative emission of carbon dioxide between the years 1990 and 2100, which means for 110 years. On condition that the carbon dioxide concentration in the first case will not exceed 450 ppm -- meaning 450 particles per one million in a molecule, or molecule per million molecules of atmospheric air. Here it is 550 ppm, which means 550 particles of carbon dioxide per million of molecules of atmospheric air, correspondingly 650 ppm and 750 ppm.

And here we have different variants of reducing the emission, different variants of technological decision. And I would like to draw your attention not so much to that vertical axis indicating maximum volumes of carbon dioxide emission, measured in gigatons of carbon and more for that vertical axis which contains the indication of the price of activities, measured in trillions -- and for those who might make mistakes with zeros, we have a "crutch" -- ten to the power of 12 -- dollars in prices of 1990.

If we take a look at this scale, we will see that this variant is near the figure of 1,800 which means one quadrillion 800 trillions of dollars in 1990 prices. For those who deal with such figures not quite regularly, I will simply give you one figure for comparison. The figure is the world gross domestic product of 2002, i.e., of last year measured in 1990 prices. The whole world, including the US, China, Germany, Japan -- generally the whole world, all those six billion odd people produced the GDP worth 32 trillion dollars per year. This is to say that if we put this post here, it would be a very small post. This is what produced by the entire world economy during the year. And here -- marked with a pole -- is the spending to take measures under the Kyoto Protocol on this particular project with these conditions. Of course, with other conditions and on other variants, the expenditure may be even less. But even in the most conservative estimate, it is a figure on the order of 100 trillion dollars. This is to say that it is three times more than the current world gross domestic product. Each can make a conclusion as to whether or not such activities are expensive or cheap and to what extent such measures are practicable and realistic.

There is one more aspect which as a rule is not discussed intensively because it is regarded not to be quite decent to discuss. And not all of us engage in the studies of climate and we don't have any restraining factors and we can engage in discussing this part which may be regarded as not quite correct in political terms. And this part is called Emission of Carbon Dioxide -- it is an inevitable product of civilization at the current stage of development. We will not say that carbon dioxide is a product of human life. But if we stop producing carbon dioxide, we will simply cease to exist. But the present economic civilization is based on hydrocarbons. Like it or not, effective or

ineffective, but humankind burned and is burning wood, coal, oil, gas, fossil fuel, people are generating energy which they use in their life.

This chart here shows a connection between average annual increase in carbon dioxide emissions in the last 40 years and the average annual increase in GDP over the same period. It's easy to see that there is a rather high correlation between the two in about 150 countries. It's easy to see that all countries that had high economic growth rates are in the right-hand upper corner of the chart. This means that these countries had rather large average emissions of carbon dioxides. At the same time, the countries that had no increase in carbon dioxide emissions during this period had either low or negative economic growth rates. Since our country has been busy the last six months discussing how to double GDP, we couldn't help looking at this picture from this point of view.

If we are to double GDP within the next 10 years, this will require an average economic growth rate of 7.2 percent. It's a horizontal line here. We see the first point on this line or above it, draw a vertical line through this point and this tells us that these countries that had sufficient economic growth rates for doubling GDP within 10 years or even higher rates, these countries increased their carbon dioxide emissions by 7 percent or even more every year. No country in the world can double its GDP with a lower increase in carbon dioxide emissions or with no increase at all.

If we apply to this picture the requirements that the Kyoto Protocol applies to Russia, we will see the following: since the Kyoto Protocol says that the 1990s levels may not be changed, in other words, it sets the limit, we may actually say the zero point -- we use this zero point to draw a vertical line until it meets the last point here and continue it to the left toward axis Y. And this leads us to the point of 4.5 percent. This means that the best rate that has ever been achieved in the world economic history in the last 40 years, that this is the best one can achieve without increasing the emission of carbon dioxide and with the maximum economic growth rate of 4.5 percent. All other observations are below that. At least 4.5 percent is the maximum that one can achieve. There has been nothing higher. This is the highest rate that one can achieve. If we take the average, the growth rate will be lower.

Lastly, if we look at the criterion that simply does not exist in official documents, but that has been actively discussed, for Russia it is 42 percent of the 1998 level, which the country is supposed to achieve by 2050. And this means that we will have to reduce greenhouse gas emissions every year by about 3.5 percent. So, we take this rate of 3.5 percent and go up every year until we meet the last point that is consistent with this criterion. And this takes us to about 2.5 percent.

In other words, the maximum rate of economic growth that may be possible if this criterion is to be met and that has been achieved in the last 40 years is 2.5 percent of GDP growth a year. Everything else will be below that. This chart may not be politically correct. But it shows the nature of connections between carbon dioxide emissions and economic development at the present stage of human civilization. Like it or not, people will survive because they have to inhale oxygen and exhale carbon dioxide. The economy is a living creature and it has to consume energy. In the 1930s there was a motto that read "Coal is the bread of industry." So, we can say that oil is the blood of industry and so on. But there is logic to this because this is something that gives us energy that powers our industrial and economic development. Since there is such a strong connection between carbon dioxide emissions and economic growth, the implementation of the Kyoto Protocol or even preparations for its implementation, which will be more correct to say, will curb economic growth considerably.

This column here includes all countries listed in Appendix 1, that is the countries that are parties to the Convention on Climate Change and that have ratified the Kyoto Protocol. Some of them have worked to reduce carbon dioxide emissions with more success, others with less success in order to meet the criteria established for them in 2008-2012. It turned out that the average increase in GDP in 1997-2002 was chosen because the Kyoto Protocol was signed in 1997. These are the years when authorities had to meet the criteria determined by the Kyoto Protocol. And the rate of growth was 2.1 percent a year.

The rest of the world that was not bound by any obligations, irrespective of whether a country has ratified the Kyoto Protocol or not and whether it is a party to the Kyoto Protocol or not, they did not assume any obligations. And they developed almost twice as fast as the countries that had assumed such obligations and fulfilled them. As we can see, some of the countries, especially EU countries and Japan, took their obligations very seriously and have reduced emissions. For these countries and regions of the world that have undertaken to reduce emissions, the rate of growth was negative in the last 1990s. Other countries did not reduce emissions and actually increased them. How did this affect economic growth in these countries? While the European Union still had economic growth, although quite modest in the last few years, Japan was basically stagnating, but the countries that did not reduce emissions showed very impressive economic growth rates. This allowed them to obtain additional financial resources to improve the life of their citizens, including the poor part of the population, particularly in such a country as India where more than one billion people live, as well as Iran and Mexico.

If we further narrow down the topic, we will approach the relationship between Russia and the Kyoto Protocol and we will see a rather noticeable phenomenon which can hardly be described in any other way but discrimination against Russia. In fact, if we take the absolute volumes of carbon dioxide emissions, these are the latest data that have been available for a whole number of countries, Russia has produced 1.7 billion tons of carbon dioxide. But there are countries that produce more carbon dioxide than Russia. The biggest of them are the US and China.

However, these countries have not imposed any restrictions on emissions and they have no plans to assume any obligations. If we take a look at the per capita figure of carbon dioxide emission in Russia, it is quite a big indicator -- about 10 tons per one person. But it turns out that there are tens of countries in the world where the emission is higher than in Russia. And in some countries the emission is tens of times higher than it is in Russia and those countries do not commit themselves to any restrictions. If we take a look at the specific GDP "load" in regard to carbon dioxide emission, it is quite big -- 1.6 kilograms per one dollar of the GDP produced in accordance with purchasing power parity in prices of 1999. However, it turns out that tens of countries in the world where carbon dioxide emission per one Dollar of GDP produced is higher than in Russia but they are not restricted in any way. Our country possesses a certain amount of financial resources, conditioned by the size of the GDP but nevertheless, we are not the largest economy in the world. There are economies that have not smaller but much bigger financial resources, including for the pursuit of different activities in order to meet the requirements of the Kyoto Protocol but emission is not limited in those countries. Finally, per capita GDP in this country is about 7.5 thousand dollars per capita -- it is a country with an average development but we can see that there is quite a number of countries which have much higher indicators of per capita GDP incomes and they undertake no restrictions on carbon dioxide emission.

Finally, one of the most hotly debated questions is the following: given all the deficiencies and unclear points of the Kyoto Protocol, it has one substantial advantage -- the Kyoto Protocol enables Russia to trade in its quotas per superfluous ones, say pure air. Russia can sell the air to countries that need it. It is because those other countries will exceed the limits of hothouse gas emission.

Alas, regrettably, this statement does not square with reality, it is illusory. It has its roots in the reflections of those who established the Kyoto Protocol in 1990s. Then indeed there were three major potential buyers of free quotas in the world -- the United States of America, the European Union and Japan. Based on the projections of economic growth in those countries it was expected that they will be net buyers of available quotas. However, quite a lot of interesting things happened over the period. The United States left the Kyoto Protocol and is not going to ratify it while the European Union and Japan, on the one hand, carry out large programs to introduce technologies reducing the discharges of hothouse gases; and on the other they have lower rates of economic growth, actually being in a stage of stagnation.

As a result of this, one can say with a high degree of probability that the European Union and Japan will on the whole reach the required levels of hothouse gas emission in 2008-2012. And that is why no demand will appear on their side for free and clear air. Essentially, there is no buyer for European quotas. At least there is no high degree of probability.

But let us also say that the European Union will most likely meet those criteria. But different countries meet the criteria in different ways and it is likely that some countries may not be able to reach that level -- that is true. But then these countries will not be able to buy free quotas from other EU countries -- which is attested to by the appropriate EU directive approved two months ago.

Finally, if the number of such countries turns out to be slightly bigger and it will not be possible to reduce the carbon dioxide emission to the degree one would like to over the period, then there are 10 countries of Eastern Europe which in the spring of 2004 will become EU members and thus they will be the first natural participants in that line. They will become the sellers of the quotas that they have. Russia will in any case be the last in that list.

Finally, even if you imagine a hypothetical situation that buyers will still be found for some Russian quotas, that situation will exist for a very brief period. Between the year 2008 when the appropriate market mechanism may begin to operate, and up to 2012, 2014, 2016 the dependence on the rates of growth of the Russian economy when we will reach those restrictions on discharges that are established either under the first stage of the Kyoto Protocol or under the next one which is now beginning to be discussed.

And then after crossing that point Russia finds itself not as a seller but a buyer of pure air quotas. And if we are not going to restrict ourselves in economic growth, in economic development in 2012, 2014 or 2016, that in principle they are not of great importance, we will then be forced to buy additional technologies and equipment in order to better meet the stringent standards and on the other hand, to buy additional quotas in order to be able to improve our production.

One can imagine this tradeoff -- this matching of pluses and minuses of the solution. In principle, the situation in regard to the Kyoto Protocol may be

illustrated with us a slightly simplified picture compared with man. Considering that human organism in this sense differs little from the economy. Let us say we can imagine the US economy as a grown up person, with 180 centimeters in stature, weighing 80 kilograms, aged 20 and such a man exhales about 249 kilograms of carbon dioxide a year. We take the average parameters of man, not an athlete, not big, not small, about an average man.

Compared with such a man, we Russia, as an economy would look like a child aged five and a half years, weighing 20 kilograms, being 110 centimeters in stature and the results of our life and work would be exhaled as roughly 88 kilograms of carbon dioxide a year. If we ratify the Kyoto Protocol, then we will at most reach the level that corresponds to what we had in 1990 -- it is about 159 kilograms of carbon dioxide. Such volume, a mass of carbon dioxide corresponds to a teenager aged 12 and weighing 40 kilograms. We simply cannot develop any further. Of course we would like to grow and inhale more oxygen and eat more of something, but we have that boundary in the form of a red plank, beyond which we cannot grow.

Moreover, there enters into force the second phase of the Kyoto Protocol under which the emission permitted to us must not exceed 48 percent from the 1998 level when, in terms of emission per man per year will reach 30 kilograms which roughly corresponds to an infant aged two and a half months and weighing about 6 kilograms.

Of course, this is clearly a simplification. Nevertheless, this simplification gives one an idea of the challenges and problems we may face if we decide to go down that road. At least if we take that road we have to clearly see what tasks we will have to resolve in addition to other problems we are also grappling with.

And finally, naturally, one more argument arises which can repeatedly be heard and you surely heard it -- the argument to the effect that with such an economy, with such an energy effective economy, with an economy that consumes so much carbon dioxide, such goals cannot be accomplished. It is necessary to switch to new technologies. We need to move on to a higher level of development. And we can only agree with this. There is no doubt that this must be done. But the big question is when and how we can move on to these new technologies.

In order to get some idea about other technologies, let's take a look at this picture. Global power generation looks as follows: 6.8 percent of energy, and not only energy, is generated by nuclear power plants, 2.3 percent by hydropower plants, 0.5 percent by geothermal power plants, and 90.4 percent by hydrocarbons that are burnt to heat our houses, to cook food, to power our cars, planes and ships.

This is why when some say that it is necessary to move on to another stage of technological development, there are no objections to that. But the question is what exactly is meant. If you stop using hydrocarbons, what stage are you going to move on to? Geothermal? And then the question is where are the sources and when can you do this? Or, are you going to move on to the stage of hydropower generation. But most of the world's hydropower resources have already been used and what is left is located in a few localities in different parts of the world, and this will not solve global problems. And this leaves the last option -- nuclear power engineering. Therefore, we must understand that those who say that -- after all, we are people and we are not fantasizing here. And this means that if we give up fossil fuel as the main source of energy and the main element of our civilization and modern economy, we will have to move on to nuclear power engineering and to replace fossil fuel with nuclear power generation.

The supporters, those who call themselves environmentalists, the supporters of the Green movement who support the Kyoto protocol and who object to the development of nuclear power engineering, they may find it interesting to know that there is a discovery many of them are not even aware of when they call for the ratification of the Kyoto Protocol. It is quite possible that nuclear power engineering is the safest way to generate energy, as those who work in this field say. I may not know this.

But even if there is a certain period of time during which humankind may change one energy generation technology for another, the ratio would be 4.9 to 6.8. It's not hard to figure out how much time and investment we will need, what structural changes will have to occur in our life and society and safety in order to do this. And whether this can be done by 2008, 2012, 2014 or 2016.

So, from this point of view, it is very interesting how justified is a seemingly illusory belief in such technological operations. Basically, this allows us to formulate 10 conclusions. Sometimes they may be formulated in a somewhat harsh or categorical way. Nevertheless, we don't have answers to the questions that were formulated and to the many other questions that were not expressed today but which are constantly heard over the past 20 years. They may be formulated as follows. So far the

Kyoto Protocol does not have a scientific substantiation. That model of climate which is proposed, has many deficiencies and fails to accommodate many factors, and what has been presented so far lacks conviction. The Kyoto Protocol has significantly exaggerated the speed of the real increase in carbon dioxide emission especially in recent years. The Kyoto Protocol is not universal. It does not include all the countries of the world and it does not impose limitations on all countries of the world.

By its mechanism, the Kyoto Protocol is not effective, it cannot attain even the goals that it proclaims. The Kyoto Protocol is unacceptably expensive. The costs given in the calculations in this book are of course beyond the boundary of the reality.

The Kyoto Protocol or rather compliance with the Kyoto Protocol conditions is obviously holding up economic growth and today this was again admitted at the world conference on climate change, in the statement by IPCC co-chairman Professor Bolen (sp.--FNS) who clearly said in his statement that yes, indeed, meeting the Kyoto Protocol provisions reduces the pace of economic growth by one percent a year according to his estimate.

One can argue whether it's one or two percent, this is immaterial. The important thing is that nobody, including the supporters of Kyoto Protocol ratification, takes issue with the fact that the pursuit of the Kyoto Protocol requirements and the economic growth are opposed directions. They are incompatible.

The concrete text of the Kyoto Protocol and the requirements that Russia is expected to meet, are discriminatory. The Kyoto Protocol is dooming Russia not to the role of the seller, but to the role of a buyer of quotas for hothouse gas emission. Considering that the Kyoto Protocol is restricting economic growth, we must say it straight that it means dooming the country to poverty, backwardness and weakness.

And finally and lastly, this concerns not only Russia but also the entire world and in this case we can speak about the interests of not only and not solely of Russia but rather of the interests of the world. The Kyoto Protocol relies of course on technological illusions. Replacing the technological base of hydrocarbon energy sector, which took 1,000 years to establish and which is now in a state of development in which it has been during several years, is a great illusion.

That would be it. Now I am prepared to answer your questions.

(Further Mr. Illarionov answered journalists' questions.)

1357_f_06c6j003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Ahsha Tribble <Ahsha.Tribble@noaa.gov> (Ahsha Tribble <Ahsha.Tribble@noaa.gov> [UNKNOWN])

CREATION DATE/TIME: 9-OCT-2003 20:41:28.00

SUBJECT:: Re: RE: LRM 196 - CCSP Letter to Ehlers

TO: Bryan J. Hannegan (CN=Bryan J. Hannegan/OU=CEQ/O=EOP@Exchange [CEQ])
READ: UNKNOWN

CC: E. Holly Fitter (CN=E. Holly Fitter/OU=OMB/O=EOP [OMB])
READ: UNKNOWN

TEXT:
Holly,

CCSP concurs with CEQ's 10/9 edits.

Ahsha

Ahsha N. Tribble, Ph.D.
DOC/NOAA
HCHB/Room 5804
14th & Constitution Ave, NW
Washington, DC 20230
202-482-5920 (DoC)
202-482-6318 (Fax)
Ahsha.Tribble@noaa.gov

----- Original Message -----

From: "Hannegan, Bryan J." <Bryan_J._Hannegan@ceq.eop.gov>
Date: Thursday, October 9, 2003 4:35 pm
Subject: RE: LRM 196 - CCSP Letter to Ehlers

- > After reviewing your response, I recommend the following language
- > items:
- > #1: Useful projections of the potential impacts of climate change will
- > require improved climate models and advances in our understanding of
- > climate impacts.
- >
- > #2: The CCSP has had significant accomplishments during the past
- > decade in fostering the development of human resources, and will
- > expand these
- > accomplishments in the future. Activities to build capacity in human
- > resources are discussed in specific sections and chapters of the Plan
- > (e.g. Chapter 10, objective 2.2, pp. 204, and Chapter 14, Section
- > 3, pp.
- > 290-291).
- >
- > #3: (add to end of fourth bullet) CCSP activities in Decision Support
- > will focus on development and delivery of resources to
- > stakeholders in
- > effective and credible ways, and such activities are important new
- > commitments under this interagency Plan.

> -----Original Message-----
> From: Ahsha Tribble [mailto:ahshadc@yahoo.com]
> Sent: Wednesday, October 08, 2003 10:28 PM

003481

1357_f_06c6j003_ceq.txt

> To: Hannegan, Bryan J.
> Cc: Ahsha.Tribble@noaa.gov
> Subject: Ehler's Comments

> Bryan,

> (I am having trouble with attachments on my NOAA email account.
> Please respond to Ahsha.Tribble@noaa.gov. Sorry about this.)

> Again, we thank CEQ for now two rounds of comments on the
> response to Ehlers' request. I have attached comments addressing
> three of your suggested edits. We concur with all other comments.

> Please let me know your thoughts. If you would like to discuss
> them (instead of sending an email), please feel free to call me in
> the morning (482-5920). I will be back in the office after 9:30 AM.

> Thank you,
> Ahsha

> _____
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Hannegan, Bryan J.

From: Hannegan, Bryan J.
Sent: Thursday, October 09, 2003 4:36 PM
To: Ahsha.Tribble@noaa.gov; Fitter, E. Holly
Cc: 'Ahsha Tribble'
Subject: RE: LRM 196 - CCSP Letter to Ehlers

After reviewing your response, I recommend the following language items:

[Redacted text block]

-----Original Message-----

From: Ahsha Tribble [mailto:ahshadc@yahoo.com]
Sent: Wednesday, October 08, 2003 10:28 PM
To: Hannegan, Bryan J.
Cc: Ahsha.Tribble@noaa.gov
Subject: Ehler's Comments

Bryan,

[Redacted text block]

Thank you,
Ahsha

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Climate Change Science Program
Rep. Ehlers

004252

115

CEQ 005423

Moss, Elizabeth

From: Hannegan, Bryan J.
Sent: Thursday, October 09, 2003 4:36 PM
To: Ahsha.Tribble@noaa.gov; Fitter, E. Holly
Cc: 'Ahsha Tribble'
Subject: RE: LRM 196 - CCSP Letter to Ehlers

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#3: (add to end of fourth bullet) CCSP activities in Decision Support will focus on development and delivery of resources to stakeholders in effective and credible ways, and such activities are important new commitments under this interagency Plan.

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Cc: Ahsha.Tribble@noaa.gov
Subject: Ehler's Comments

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Thank you,
Ahsha

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Hannegan, Bryan J.

From: Hannegan, Bryan J.
Sent: Thursday, October 09, 2003 5:37 PM
To: Fitter, E. Holly; Hurst, Kevin D.
Cc: Cooney, Phil; Fiddelke, Debbie S.; Towcimak, Natalie
Subject: RE: LRM EHF 198 -- CCTP Reports

[REDACTED]

Questions can be directed to me via Blackberry or phone (202) 395-0801.

Bryan Hannegan
Associate Director for Energy and Transportation
CEQ



draft comments on
cctp current...

-----Original Message-----

From: Fitter, E. Holly
Sent: Friday, October 03, 2003 12:22 PM
To: Wuchte, Erin; Lyon, Randolph M.; Radzanowski, David P.; Neyland, Kevin F.; Fairweather, Robert S.; Irwin, Janet E.; Erbach, Adrienne C.; Mertens, Richard A.; Reilly, Thomas; Kulikowski, James M.; Foster, Gillian J.; Smith, Bryan R.; Mertens, Steven M.; Lobrano, Lauren C.; Peacock, Marcus; Nec Lrm; Cea Lrm; Joseffer, Daryl L.; Kaminski, Amy; Rothenberg, Jason; Newstead, Jennifer G.; Rossman, Elizabeth L.; Hurst, Kevin D.; Cooney, Phil; Sandoli, Robert; O'Donovan, Kevin M.; Ovp Lrm; Ceq Lrm; usdaobpaleg@obpa.usda.gov; judy.baldwin@usda.gov; julie.allen@usda.gov; dodlrs@dodgc.osd.mil; energy.gc71@hq.doe.gov; epalrm@epamail.epa.gov; CLRM@doc.gov; lrm@hhs.gov; ocl@ios.doi.gov; lrm@nsf.gov; NASA_LRM@hq.nasa.gov; state-lrm@state.gov; dot.legislation@ost.dot.gov; GC.OMB@usaid.gov; wilkinsc@ogr.si.edu; Ostp Lrm; justice.lrm@usdoj.gov
Cc: Burnim, John D.; Jukes, James J.
Subject: CCTP Current Activities Report - for review

Please review the "U.S. Climate Change Technology Program" -- Research and Current Activities - Review Draft September 2003, and provide comments by 10:00 AM Friday October 10. Thanks.

The report file is very large. I will be sending it to you in several pieces in subsequent e-mails, however I am concerned that it may not go through your e-mail buffer.

If you do not receive the document by e-mail within the next hour, please access the website noted below.

Climate Change Technology Program
Report

THIS WEBSITE SHOULD BE SHARED ONLY WITH FEDERAL EMPLOYEES WHO NEED ACCESS. THANKS.

URL: [REDACTED]
User ID: [REDACTED]
Password: [REDACTED]

202

LRM ID: EHF198

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
Washington, D.C. 20503-0001

Friday, October 3, 2003

LEGISLATIVE REFERRAL MEMORANDUM

TO: Legislative Liaison Officer - See Distribution below
FROM: John D. Burnim (for) Assistant Director for Legislative Reference
OMB CONTACT: E. Holly Fitter
E-Mail: E_Holly_Fitter@omb.eop.gov
PHONE: (202)395-3233 FAX: (202)395-5691
SUBJECT: OSTP Report on U.S. Climate Change Technology Program: Key Technologies for the Near and Long Term

DEADLINE: 10:00 AM Friday, October 10, 2003

DISTRIBUTION LIST

AGENCIES:

- 019-Council on Environmental Quality - Debbie S. Fiddelke - (202) 456-3908
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 - 033-Environmental Protection Agency - Edward Krenik - (202) 564-5200
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 - 109-Smithsonian Institution - Nell Payne - (202) 357-2962
 - 095-Office of Science and Technology Policy - Maureen O'Brien - (202) 456-6037
- JUSTICE

Message

CEQ
636 R

Cooney, Phil

From: Gayer, Ted
Sent: Thursday, October 16, 2003 1:46 PM
To: Cooney, Phil
Subject: gao testimony

Phil,
I've attached a draft of the letter to GAO. I left some gaps, which I think you can fill in easily. Greg has passed on signing the letter, so it's yours to have Jim sign and deliver. Let me know if you need more information from me.
Ted

001077
CEQ 005429

Cooney, Phil

CEQ
647
PC

From: Margarita Gregg [Margarita.Gregg@noaa.gov]
Sent: Friday, October 17, 2003 9:59 AM
To: CCSP@usgcrp.gov; CCSP_INFO@usgcrp.gov
Subject: CCSP Draft Agenda and Documents for October 22nd Meeting

Attached is a draft agenda for the CCSP meeting to be held October 22nd, from 1:00-3:00 pm in the CCSPPO 1717 Pennsylvania office large conference room. Also included in the package are documents relating to the different items on the agenda.

If you have any comments or additional items for the agenda, please contact me at (202) 419-3466 or email: Margarita.Gregg@noaa.gov.

If you wish to call in, please let me know prior to the meeting. The conference call number is:

USA Toll Free Number: 877-546-1574
PASSCODE: 18138

CALL DATE: OCT-22-2003 (Wednesday)
CALL TIME: 01:00 PM EASTERN TIME

Thanks
Margarita

--
Margarita Conkright Gregg, Ph.D.
NOAA Program Planning and Implementation Office
HCHB/Room 5804
14th & Constitution Ave, NW
Washington, DC 20230
Phone: 202-482-3252 (DoC) or (202)419-3466 (CCSP Office)
Fax: 202-482-6318 (Fax)
Email: Margarita.Gregg@noaa.gov

001968

10/17/2003

CEQ 005431

Cooney, Phil

CEQ
651 PC

From: Margarita Gregg [Margarita.Gregg@noaa.gov]
Sent: Tuesday, October 28, 2003 4:35 PM
To: CCSP@usgcrp.gov; CCSP_INFO@usgcrp.gov
Subject: Follow up to 22 October CCSP Meeting



Decisions and
Actions 22Oct03....

Attached is a document which summarizes decisions and actions from the 22 October CCSP Principals meeting. Included in the document is the latest table of the Synthesis and Assessment Products, DOT prospectus, and NOAA prospectus. Many of these items have action items associated with them. Also please note, the next CCSP meeting is scheduled for Friday, November 14, from 1:30 - 3:00 p.m. Please confirm your attendance with Sandy MacCracken (smaccrac@usgcrp.gov) and Margarita Conkright Gregg (Margarita.Gregg@noaa.gov).

Thanks
Margarita

--
M.E. Conkright Gregg, Ph.D.

Temporarily at:
Climate Change Science Program Office
1717 Pennsylvania Avenue
Suite 250
Washington, D.C. 20006
Phone: (202)419-3466
Fax: (202)223-3064
Email: Margarita.Gregg@noaa.gov

Permanent address:
NOAA Program Planning and Implementation Office
1315 East-West Highway, Rm # 15752
Silver Spring, MD 20910-3282
Phone: (301)713-1622 ext 185
Email: Margarita.Gregg@noaa.gov

Please contact either at: (202)419-3466 or (202)482-3252

001963

CEQ 005433

CEQ 449 PC

Cooney, Phil

From: PThorne@doc.gov
 Sent: Thursday, October 23, 2003 5:34 PM
 To: conrad.c.lautenbacher@noaa.gov; James_Andrews@onr.navy.mil; Olsen, Kathie L.; emil.frankel@ost.dot.gov; eslater@osophs.dhhs.gov; gasrar@hq.nasa.gov; Connaughton, James; jrm@usda.gov; Marburger, John H.; johnson.stephen@epa.gov; marcus.peacock@omb.eop.gov; d.nelson@state.gov; rcolwell@nsf.gov; sbodman@doc.gov; steven_griles@ios.doi.gov; Robert.Card@hq.doe.gov; emsimmons@usaid.gov
 Cc: ann_klee@ios.doi.gov; whohenst@OCE.USDA.gov; gpaules@hq.nasa.gov; watsonhl@state.gov; James.R.Mahoney@noaa.gov; Parrish, Jobi A.; Beale.john@epa.gov; Kortuem.patrice@epa.gov; Karen_Y_Knutson@ovp.eop.gov; Kevin.Kolevar@hq.doe.gov; catlettla@state.gov; linda.lawson@ost.dot.gov; Lynn_Scarlett@ios.doi.gov; Mleinen@nsf.gov; mcleave@hq.nasa.gov; mmoore@osophs.dhhs.gov; Cooney, Phil; reifsnnyderDA@state.gov; yvonne.brown@ost.dot.gov; jschafer@usaid.gov; KBarrett@usaid.gov; Scott.Rayder@noaa.gov; Joy.Viars@hq.doe.gov; Vicki.Horton@noaa.gov; Pat.A.Simms@noaa.gov; Conde, Roberta L.; Kleibacker.lu-ann@epa.gov; barbara_diehl@ios.doi.gov; Lynn_Scarlett@ios.doi.gov; David.Conover@hq.doe.gov; RBonjean@doc.gov; KWhitworth@doc.gov; jackerly@doc.gov; SHawkins@doc.gov; Margarita.Gregg@noaa.gov; Sherron_White@omb.eop.gov
 Subject: NEW DATE -- Interagency Working Group on Climate Change Science and Technology (IWGCCST)

Please note the new date:

Due to scheduling conflicts arising from the forum on International Partnership for Hydrogen Economy to be held in D.C. during the same time frame in November, the next Interagency Working Group on Climate Change Science and Technology (IWGCCST) meeting, scheduled for November 20 has been changed to November 18, 10:00 a.m. - 12:00 p.m., in Room 4830 at the Department of Commerce. An agenda will be sent prior to the meeting.

Please confirm your attendance with Margarita Conkright Gregg (Margarita.Gregg@noaa.gov or call (202) 482-3252).

Pat Thorne

001947

CEQ 005435

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR: Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP@Exchange [CEQ])

CREATION DATE/TIME: 24-OCT-2003 09:05:19.00

SUBJECT:: CO2 petitions filed - 10/24/03

TO: Kameran L. Onley (CN=Kameran L. Onley/OU=CEQ/O=EOP@Exchange [CEQ])
 READ: UNKNOWN

TO: Debbie S. Fiddelke (CN=Debbie S. Fiddelke/OU=CEQ/O=EOP@Exchange [CEQ])
 READ: UNKNOWN

TO: Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@Exchange [CEQ])
 READ: UNKNOWN

TO: Richard S. Karp (CN=Richard S. Karp/OU=NSC/O=EOP@EOP [NSC])
 READ: UNKNOWN

TO: Bryan J. Hannegan (CN=Bryan J. Hannegan/OU=CEQ/O=EOP@Exchange [CEQ])
 READ: UNKNOWN

TO: Dana M. Perino (CN=Dana M. Perino/OU=CEQ/O=EOP@Exchange [CEQ])
 READ: UNKNOWN

TO: James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@Exchange [CEQ])
 READ: UNKNOWN

TEXT:

□;

<<http://www.enn.com/index.asp>>

U.S. states sue federal government over greenhouse gases

Friday, October 24, 2003

By Nigel Hunt, Reuters

LOS ANGELES□;□*□; Twelve states, including California and New York, filed petitions Thursday in federal court in a bid to force the Bush administration to regulate emissions of greenhouse gases such as carbon dioxide.

Several separate petitions were filed in the U.S. Court of Appeals in Washington, D.C., asking it to review a decision by the federal Environmental Protection Agency that said it did not have the authority to regulate such emissions under the Clean Air Act.

The agency issued an opinion in August in response to a petition backed by environmental groups indicating it believed it did not have the authority to regulate greenhouse gases under the act.

"The U.S. EPA's decision that it has no authority to regulate greenhouse gas emissions and that these emissions technically don't even count as air pollutants is wrong, disturbing, and dangerous to Californians' health, environment, and economy," said California Attorney General Bill Lockyer.

California filed a petition on its own and 11 other states filed jointly: New York, Massachusetts, Connecticut, Maine, Illinois, New Jersey, New Mexico, Oregon, Vermont, Washington, and Rhode Island.

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RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:"Ruppe, Loret" <LRuppe@usaid.gov> ("Ruppe, Loret" <LRuppe@usaid.gov> [UNKNOWN])

CREATION DATE/TIME:27-OCT-2003 13:34:47.00

SUBJECT:: FIPCC document review

TO:"'rmoss@usgcrp.gov'" <rmoss@usgcrp.gov> ("'rmoss@usgcrp.gov'" <rmoss@usgcrp.gov> [UNKNOWN])
READ:UNKNOWN

TO:"'ccsp@usgcrp.gov'" <ccsp@usgcrp.gov> ("'ccsp@usgcrp.gov'" <ccsp@usgcrp.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Reifsnyder, Dan A (OES)" <ReifsnyderDA@state.gov> ("Reifsnyder, Dan A (OES)" <ReifsnyderDA@state.gov> [UNKNOWN])
READ:UNKNOWN

TO:"'Mitchell Baer (\\"Mitch\\" (E-mail))'" <Mitchell.Baer@hq.doe.gov> ("'Mitchell Baer (\\"Mitch\\" (E-mail))'" <Mitchell.Baer@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:"'Indur Goklany (E-mail)'" <Indur_Goklany@ios.doi.gov> ("'Indur Goklany (E-mail)'" <Indur_Goklany@ios.doi.gov> [UNKNOWN])
READ:UNKNOWN

TO:"'Dina Kruger (E-mail)'" <Kruger.Dina@epamail.epa.gov> ("'Dina Kruger (E-mail)'" <Kruger.Dina@epamail.epa.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Yoffe, Shira B (OES)(EGC)" <YoffeSB@state.gov> ("Yoffe, Shira B (OES)(EGC)" <YoffeSB@state.gov> [UNKNOWN])
READ:UNKNOWN

TO:"'kbickel@oce.usda.gov'" <kbickel@OCE.USDA.gov> ("'kbickel@oce.usda.gov'" <kbickel@OCE.USDA.gov> [UNKNOWN])
READ:UNKNOWN

TO:Kenneth L. Peel (CN=Kenneth L. Peel/OU=CEQ/O=EOP@Exchange [CEQ])
READ:UNKNOWN

TO:Christine L. Dobridge (CN=Christine L. Dobridge/OU=CEA/O=EOP@Exchange [CEA])
READ:UNKNOWN

TO:"'Tony Socci (E-mail)'" <Socci.Tony@epamail.epa.gov> ("'Tony Socci (E-mail)'" <Socci.Tony@epamail.epa.gov> [UNKNOWN])
READ:UNKNOWN

TO:"'Rick Bradley (E-mail)'" <Richard.Bradley@hq.doe.gov> ("'Rick Bradley (E-mail)'" <Richard.Bradley@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:'Joseph Huang' <joseph.huang@EE.DOE.GOV> ('Joseph Huang' <joseph.huang@EE.DOE.GOV> [UNKNOWN])
READ:UNKNOWN

TO:"'fitzgerald.jack@epa.gov'" <fitzgerald.jack@epa.gov> ("'fitzgerald.jack@epa.gov'" <fitzgerald.jack@epa.gov> [UNKNOWN])
READ:UNKNOWN

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TO:"Gordon, Susan, C (OES)" <GordonSC@state.gov> ("Gordon, Susan, C (OES)"
<GordonSC@state.gov> [UNKNOWN])
READ:UNKNOWN

TO:'Candyce Clark' <Candyce.Clark@noaa.gov> ('Candyce Clark'
<Candyce.Clark@noaa.gov> [UNKNOWN])
READ:UNKNOWN

TO:'''robinson.avis@epamail.epa.gov''' <robinson.avis@epamail.epa.gov> (
'''robinson.avis@epamail.epa.gov''' <robinson.avis@epamail.epa.gov> [UNKNOWN])
READ:UNKNOWN

TO:'''Alan C. Schroeder''' <alan.schroeder@hq.doe.gov> ('''Alan C. Schroeder'''
<alan.schroeder@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:'''ccsp_info@usgcrp.gov''' <ccsp_info@usgcrp.gov> ('''ccsp_info@usgcrp.gov'''
<ccsp_info@usgcrp.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Talley, Trigg (OES)" <TalleyT@state.gov> ("Talley, Trigg (OES)"
<TalleyT@state.gov> [UNKNOWN])
READ:UNKNOWN

TO:'''Phil DeCola (E-mail)''' <pdecola@nasa.gov> ('''Phil DeCola (E-mail)'''
<pdecola@nasa.gov> [UNKNOWN])
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TO:'''Keya Chatterjee (E-mail)''' <keya.chatterjee@nasa.gov> ('''Keya Chatterjee
(E-mail)''' <keya.chatterjee@nasa.gov> [UNKNOWN])
READ:UNKNOWN

TO:'''Indur Goklany (E-mail 2)''' <igoklany@cox.net> ('''Indur Goklany (E-mail 2)'''
<igoklany@cox.net> [UNKNOWN])
READ:UNKNOWN

TO:'''Bill Hohenstein (E-mail)''' <WHohenst@OCE.USDA.gov> ('''Bill Hohenstein
(E-mail)''' <WHohenst@OCE.USDA.gov> [UNKNOWN])
READ:UNKNOWN

TO:'''Anne Grambsch (E-mail)''' <Grambsch.Anne@epamail.epa.gov> ('''Anne Grambsch
(E-mail)''' <Grambsch.Anne@epamail.epa.gov> [UNKNOWN])
READ:UNKNOWN

TO:'''Thomas (Tom) Spence (E-mail)''' <tspence@nsf.gov> ('''Thomas (Tom) Spence
(E-mail)''' <tspence@nsf.gov> [UNKNOWN])
READ:UNKNOWN

TO:'''wickwire.Susan@epamail.epa.gov''' <wickwire.Susan@epamail.epa.gov> (
'''wickwire.Susan@epamail.epa.gov''' <wickwire.Susan@epamail.epa.gov> [UNKNOWN])
READ:UNKNOWN

TO:'''Katherine Buckley (E-mail)''' <Buckley.Katherine@epa.gov> ('''Katherine Buckley
(E-mail)''' <Buckley.Katherine@epa.gov> [UNKNOWN])
READ:UNKNOWN

TO:'''Joel Scheraga (E-mail)''' <scheraga.joel@epa.gov> ('''Joel Scheraga (E-mail)'''
<scheraga.joel@epa.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Stokes, Carrie" <CStokes@usaid.gov> ("Stokes, Carrie" <CStokes@usaid.gov> [
UNKNOWN])
READ:UNKNOWN

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TO: 'Robert Dixon' <robert.dixon@hq.doe.gov> ('Robert Dixon'
<robert.dixon@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO: STATE+20DEPT+20USERS_CN=SARAMALLINDER-000300030017"@usaid.gov> ("'Allinder, Sara
M (OES) (IHA)'"
<"IMCEAEX-_O=USAID_OU=STATE-FADS_CN=STATE+20DEPT+20USERS_CN=SARAMALLINDER-0003000300
17"@usaid.gov> [UNKNOWN])
READ:UNKNOWN

TO: "'Alan Perrin (E-mail)'" <perrin.alan@epa.gov> ("'Alan Perrin (E-mail)'"
<perrin.alan@epa.gov> [UNKNOWN])
READ:UNKNOWN

CC: "Artusio, Christo F (OES)" <ArtusioCF@state.gov> ("Artusio, Christo F (OES)"
<ArtusioCF@state.gov> [UNKNOWN])
READ:UNKNOWN

CC: "Barrett, Ko" <KBarrett@usaid.gov> ("Barrett, Ko" <KBarrett@usaid.gov> [UNKNOWN
])
READ:UNKNOWN

BCC: Jason Rothenberg (CN=Jason Rothenberg/OU=OMB/O=EOP [OMB])
READ:UNKNOWN

TEXT:
ÿ

Hi All,

ÿ

Your comments on the attached document are being sought in preparation for
the upcoming IPCC Plenary (Nov. 3-8).ÿ The document is found at the
following website:

ÿ

<http://www.ipcc.ch/meet/session21/wg2doc3.pdf>

ÿ

Please forward edits on the Working Group II Proposed Chapter Outline to
me by COB Thursday, October 30.ÿ I also need suggestions on authors and
lead authors.ÿ

ÿ

Consider forwarding the document as appropriate.

Thank you very much,

Loret Ruppe

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ÿ

Loret M. Ruppe

AAAS Fellow at the US Agency for International Development

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Office of Environment and Science Policy

Global Climate Change

1300 Pennsylvania Avenue, NW, Room 3.08-93

Washington D.C. 20523-3800

tel: 202.712.0375

fax: 202.712.3174

email: LRuppe@usaid.gov

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1365_f_csuej003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:"Conover, David" <David.Conover@hq.doe.gov> ("Conover, David"
<David.Conover@hq.doe.gov> [UNKNOWN])

CREATION DATE/TIME:29-OCT-2003 14:46:24.00

SUBJECT:: CCTP Technology Options Report Review

TO:"Steve Griles (E-mail)" <steven_griles@ois.doi.gov> ("Steve Griles (E-mail)"
<steven_griles@ois.doi.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Rita Colwell (E-mail)" <rcolwell@nsf.gov> ("Rita Colwell (E-mail)"
<rcolwell@nsf.gov> [UNKNOWN])
READ:UNKNOWN

TO:Marcus Peacock (CN=Marcus Peacock/OU=OMB/O=EOP [OMB])
READ:UNKNOWN

TO:Kathie L. Olsen (CN=Kathie L. Olsen/OU=OSTP/O=EOP@Exchange [OSTP])
READ:UNKNOWN

TO:James Connaughton (CN=James Connaughton/OU=CEQ/O=EOP@Exchange [CEQ])
READ:UNKNOWN

TO:"James Andrews (E-mail)" <James_Andrews@onr.navy.mil> ("James Andrews (E-mail)"
<James_Andrews@onr.navy.mil> [UNKNOWN])
READ:UNKNOWN

TO:"Eve Slater (E-mail)" <eslater@osophs.dhhs.gov> ("Eve Slater (E-mail)"
<eslater@osophs.dhhs.gov> [UNKNOWN])
READ:UNKNOWN

TO:Clay Sell (CN=Clay Sell/OU=OPD/O=EOP@Exchange [OPD])
READ:UNKNOWN

TO:"Sam Bodman (E-mail)" <SBodman@doc.gov> ("Sam Bodman (E-mail)" <SBodman@doc.gov>
[UNKNOWN])
READ:UNKNOWN

TO:"Paula Dobriansky (E-mail)" <d.nelson@state.gov> ("Paula Dobriansky (E-mail)"
<d.nelson@state.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Jim Mosely (E-mail)" <jrm@usda.gov> ("Jim Mosely (E-mail)" <jrm@usda.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Jeff Holmstead (E-mail)" <rhonda.white@epa.gov> ("Jeff Holmstead (E-mail)"
<rhonda.white@epa.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Ghassem Asrar (E-mail)" <gasrar@hq.nasa.gov> ("Ghassem Asrar (E-mail)"
<gasrar@hq.nasa.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Emil Frankel (E-mail)" <emil.frankel@ost.dot.gov> ("Emil Frankel (E-mail)"
<emil.frankel@ost.dot.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Bob Card (E-mail)" <robert.card@hq.doe.gov> ("Bob Card (E-mail)"
<robert.card@hq.doe.gov> [UNKNOWN])

READ:UNKNOWN

CC:Roberta L. Conde (CN=Roberta L. Conde/OU=CEQ/O=EOP@Exchange [CEQ])
READ:UNKNOWN

CC:Robert Sandoli (CN=Robert Sandoli/OU=OMB/O=EOP [OMB])
READ:UNKNOWN

CC:Phil Cooney (CN=Phil Cooney/OU=CEQ/O=EOP@Exchange [CEQ])
READ:UNKNOWN

CC:"Mary Cleave (E-mail)" <mcleave@hq.nasa.gov> ("Mary Cleave (E-mail)"
<mcleave@hq.nasa.gov> [UNKNOWN])
READ:UNKNOWN

CC:Kevin D. Hurst (CN=Kevin D. Hurst/OU=OSTP/O=EOP@Exchange [OSTP])
READ:UNKNOWN

CC:Jobi A. Parrish (CN=Jobi A. Parrish/OU=OSTP/O=EOP@Exchange [OSTP])
READ:UNKNOWN

CC:"Harlan Watson (E-mail)" <watsonhl@state.gov> ("Harlan Watson (E-mail)"
<watsonhl@state.gov> [UNKNOWN])
READ:UNKNOWN

CC:Clifford J. Gabriel (CN=Clifford J. Gabriel/OU=OSTP/O=EOP@Exchange [OSTP])
READ:UNKNOWN

CC:"Bill Hohenstein (E-mail)" <WHOHENST@OCE.USDA.GOV> ("Bill Hohenstein (E-mail)"
<WHOHENST@OCE.USDA.GOV> [UNKNOWN])
READ:UNKNOWN

CC:"Curtis, Michael" <Michael.Curtis@hq.doe.gov> ("Curtis, Michael"
<Michael.Curtis@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Tom Spence (E-mail)" <tspence@nsf.gov> ("Tom Spence (E-mail)" <tspence@nsf.gov>
[UNKNOWN])
READ:UNKNOWN

CC:"Linda Lawson (E-mail)" <linda.lawson@ost.dot.gov> ("Linda Lawson (E-mail)"
<linda.lawson@ost.dot.gov> [UNKNOWN])
READ:UNKNOWN

CC:Jim Mahoney <James.R.Mahoney@noaa.gov> (Jim Mahoney <James.R.Mahoney@noaa.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Dan Reifsnyder (E-mail)" <reifsnyderDA@state.gov> ("Dan Reifsnyder (E-mail)"
<reifsnyderDA@state.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Chris Kearney (E-mail)" <chris_kearney@ios.doi.gov> ("Chris Kearney (E-mail)"
<chris_kearney@ios.doi.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Scotland, Nita" <Nita.Scotland@hq.doe.gov> ("Scotland, Nita"
<Nita.Scotland@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Marlay, Robert" <Robert.Marlay@hq.doe.gov> ("Marlay, Robert"
<Robert.Marlay@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TEXT:

At the September 25th Committee on Climate Change Science and Technology Integration-Interagency Working Group (CCCSTI-IWG) meeting, I distributed a review draft of the Climate Change Technology Program's Key Technologies Report. That compendium has been through OMB Interagency Review and a revised draft, entitled Technology Options For the Near and Long Term, is now ready for final review.

If you attended the September 25th meeting, you will be receiving a final review copy via messenger this afternoon. If you sent a representative to the meeting, that individual will be receiving the final draft and is copied

on this message. If you neither attended nor sent a representative to that meeting, and would like to receive a draft for review, please contact Nita Scotland at 202-586-0070.

For us to meet the deadline for shipping CDs of the report in time for the COP 9 meeting in Milan, Italy, we need to receive any comments no later than

close of business, Wednesday, November 6. As per the guidance from CCCSTI-IWG Chairman Bodman at the meeting, agencies are not required to comment on this report. If we have not received your comments by that date we will assume that you have none. I apologize for the short review time we are providing.

If you have comments, please provide them to me via fax (202/586-0092) or email at david.conover@hq.doe.gov <mailto:david.conover@hq.doe.gov> with a copy to the CCTP Deputy Director, Dr. Robert Marlay at robert.marlay@hq.doe.gov <mailto:robert.marlay@hq.doe.gov>.

Thank you very much for your continued support of the Climate Change Technology Program. If you have any questions, please contact me at 202-586-3994.

Dave Conover
Director, Climate Change Technology Program
US DOE
202-586-3994 (voice)
240-381-6506 (wireless)
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- att1.htm===== ATTACHMENT 1 =====
ATT CREATION TIME/DATE: 0 00:00:00.00

TEXT:

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<TITLE>CCTP Technology Options Report Review</TITLE>

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<P>At the September 25th Committee on Climate Change Science and Technology Integration-Interagency Working Group (CCCSTI-IWG) meeting, I distributed a review draft of the Climate Change Technology Program's Key Technologies Report. That compendium has been through OMB Interagency Review and a revised draft, entitled<I> Technology Options For the Near and Long Term</I>, is now ready for final review.</P>

<P>If you attended the September 25th meeting, you will be r

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receiving a final review copy via messenger this afternoon. If you sent a representative to the meeting, that individual will be receiving the final draft and is copied on this message. If you neither attended nor sent a representative to that meeting, and would like to receive a draft for review, please contact Nita Scotland at 202-586-0070.

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===== END ATTACHMENT 1 =====

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RECORD TYPE: FEDERAL (NOTES MAIL)

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<David.Conover@hq.doe.gov> [UNKNOWN])

CREATION DATE/TIME:31-OCT-2003 09:28:14.00

SUBJECT:: Final Review, CCTP Research and Current Activities Report

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READ:UNKNOWN

TEXT:

MEMO TO: Interagency working Group on Climate Change Science and
Technology Integration

FROM: Dave Conover, Director, Climate Change Technology Program

SUBJECT: Final Review, CCTP Research and Current Activities Report

DATE: October 31, 2003

The second of the two CCTP documents discussed at the September 25th
Page 2

CEQ 005450

MEMO TO: sp; Interagency Working Group on Climate Change Science and Technology
Integration

FROM: Dave Conover, Director, Climate Change Technology Program

SUBJECT: sp; Final Review, CCTP Research and Current Activities Report

DATE: October 31, 2003

The second of the two CCTP documents discussed at the September 25th Interagency Working Group on Climate Change Science and Technology Integration (IWG) meeting, the *Research and Current Activities Report*, has been through OMB Interagency Review and is now ready for your final review.

If you attended the September 25th meeting, you will be receiving a final review copy via messenger today. If you sent a representative to the meeting, that individual will be receiving the final draft and is copied on this message. If you neither attended nor sent a representative to that meeting, and would like to receive a draft for review, please contact Nita Scotland at 202-586-0070.

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Thank you very much for your continued support of the Climate Change Technology Program. If you have any questions, please contact me at 202-586-3994.

Interagency Working Group on Climate Science and Technology Integration:

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DOD - J. Andrews ; NSF - R. Colwell , T. Spence
DOE - R. Card sp; sp; OMB - M. Peacock
DOI - C. Kearney (for S. Griles) sp; OSTP - C. Gabriel (for K. Olsen)
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Dave Conover
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FROM:ÿÿ Dave Conover, Director, Climate Change Technology Program

SUBJECT:ÿÿÿÿÿÿ Final Review, CCTP Research and Current Activities Report

DATE:ÿÿ October 31, 2003

The second of the two CCTP documents discussed at the September 25th

Page 2

CEQ 005457

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yyyyyy

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INTERGOVERNMENTAL PANEL ON CLIMATE CH

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INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE
IPCC WORKING GROUP I - 9th SESSION
Vienna, 4 November 2003

WG
Item
(24.IX.2003)
ENGLISH ONLY

**PROPOSED CHAPTER OUTLINE OF THE WORKING GROUP I CONTRIBUTION
TO THE IPCC FOURTH ASSESSMENT REPORT (AR4)**

(Submitted by the Co-chairs of Working Group I)

IPCC Secretariat, c/o WMO, 7bis, Avenue de la Paix, C.P. N° 2300, 1211 Geneva 2, SWITZERLAND
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Working Group I Contribution to the IPCC Fourth Assessment Report Climate Change 2007: The Physical Science Basis

Summary for Policymakers

Technical Summary

1. Historical Overview of Climate Change Science

Executive Summary

- Introduction
- Progress in Observations
- Progress in Understanding of Radiative Forcing, Processes, and Coupling
- Progress in Climate Modelling
- Advances in Understanding Uncertainties

Appendix: Glossary of Terms

2. Changes in Atmospheric Constituents and in Radiative Forcing

Executive Summary

- Introduction
- Definition and Utility of Radiative Forcing
- Recent Changes in Greenhouse Gases
- Aerosols – Direct and Indirect Radiative Forcing
- Radiative Forcing due to Land Use Changes
- Contrails and Aircraft-Induced Cirrus
- Variability in Solar and Volcanic Radiative Forcing
- Synthesis of Radiative Forcing Factors
- GWPs and Other Metrics for Comparing Different Emissions

Appendix: Techniques, Error Estimation, and Measurement Systems

3. Observations: Atmospheric and Surface Climate Change

Executive Summary

- Introduction
- Changes in Surface Climate
- Changes in the Free Atmosphere
- Changes in Atmospheric Circulation

7. Couplings Between Changes in the Climate System and Biogeochemistry

Executive Summary

- Introduction to Biogeochemical Cycles
- The Carbon Cycle and the Climate System
- Global Atmospheric Chemistry and Climate Change
- Air Quality and Climate Change
- Aerosols and Climate Change
- The Changing Land Surface and Climate
- Synthesis: Interactions Among Cycles and Processes

8. Climate Models and their Evaluation

Executive Summary

- Advances in Modeling
- Evaluation of Contemporary Mean Climate as Simulated by Coupled Global Models
- Evaluation of Large Scale Climate Variability as Simulated by Coupled Global Models
- Evaluation of the Key Relevant Processes as Simulated by Coupled Global Models
- Model Simulations of Extremes
- Climate Sensitivity
- Evaluation of Model Simulations of Thresholds and Abrupt Events
- Representing the Global System With Simpler Models

9. Understanding and Attributing Climate Change

Executive Summary

- Introduction
- Radiative Forcing and Climate Response
- Predictions of the Climate System and their Reliability
- Understanding Pre-Industrial Climate Change
- Understanding Climate Change During the Instrumental Era

Appendix: Methods used to assess predictability

Appendix: Methods used to detect externally forced signals (detection/attribution)

Appendix: Methods used to assess uncertainty

10. Global Climate Projections

Executive Summary

- Introduction



WMO

INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



UNEP

INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE

WORKING GROUP I - 9th SESSION
Vienna, 4 November 2003

WG-I: 9th/Doc. 4
Item 3
(24.IX.2003)
ENGLISH ONLY

WORKING GROUP I CONTRIBUTION TO THE IPCC FOURTH ASSESSMENT REPORT

Implementation

(Submitted by the Co-Chairs of Working Group I)

IPCC Secretariat, c/o WMO, 7bis, Avenue de la Paix, C.P. N° 2300, 1211 Geneva 2, SWITZERLAND
Phone: +41 22 730 8208/8254 Fax: +41 22 730 8025/8013
E-mail: ipcc_sec@gateway.wmo.ch Website: <http://www.ipcc.ch>

CEQ 005463

1. Activities in Support of the Assessment Process

There are a number of important opportunities for expanded communication mechanisms among authors in support of the AR4 that will be considered and developed during the initial phase of the fourth assessment round. It is recognized that not all countries and experts have equal access to the Internet, requiring examination of approaches via the web, email, and CD-ROM, where practical and feasible.

On-line Journal Access

The increasing cost of scientific journals may make it more difficult for experts in some developing countries and countries with economies in transition to access the necessary literature in a timely manner. In order to reduce the effect of this potential constraint on the participation of key experts, arrangements have been entered into with the publishers of several leading scientific journals to provide on-line web-based journal access for WG1 LAs from those countries. Costs of this on-line access are being met by donations from charitable contributions arranged by WG1. The WG1 TSU will maintain password-controlled access to this facility for the WG1 LAs.

Negotiations with additional publishing companies are continuing, with a view to extending the present arrangements to other journals including those published in developing countries. In order to improve access to journals in different languages automated translation of journal abstracts will also be investigated. While such translations are limited, their utility in improving access to papers in all languages will be investigated.

Access to Data and Model Results

A characteristic of the physical climate sciences is the increasing use of very large datasets and analyses of large amounts of computer model output. This is clearly an area where coordinated access methods and web-based tools can provide greater efficiency and enable a larger expert community to examine data or model results at first hand.

Experience with previous assessments suggests that in the course of the AR4 the scientific community will provide new compilations of data and model results directly relevant to the report. To ensure that these are as widely accessible as practical, within and across author teams and during the review process, a range of approaches will be used according to the circumstances, such as:

- provision of a central list of links to relevant datasets maintained by scientific organizations – e.g. on a chapter by chapter basis;
- provision of links to web-based tools within scientific organizations for extracting and manipulating data – e.g. GIS based tools for examining observational datasets;
- encouraging author teams to develop technical guidelines on the use of available datasets that are consistent with their assessments and which would become IPCC Supporting Material – e.g. in relation to the use of paleoclimatic data.
- encouraging the climate modeling community to provide their results in an open manner and in ways that support the assessment process – e.g. provision of radiative forcing values used in model runs to enable comparison of climate sensitivities in different models.

The WG1 TSU may take responsibility for maintaining a coordinated set of links to other sites but will not host datasets or model results as part of this activity. The WG1 role will be to work with scientific organizations and the author teams to develop consistent and open approaches to data access. Some web-based facilities relevant to the AR4 will be specific to particular science organizations, some may be appropriately managed within the mandate of the TG CIA, and others may be best managed by existing international science organizations such as IGBP/PAGES.

| Activity | Purpose/ Comments | DC/EIT Support | Cost CHF |
|--|--|-----------------------------|----------|
| Meetings and Workshops – 2004 | | | |
| Uncertainty and Risk Workshop | CCT, involving all WGs, WG1 lead. To consider guidelines for treatment of uncertainty in the AR4, includes all 3 WGs | 21 journeys, across all WGs | 132,594 |
| Regional Climate | CCT, involving all WGs, WG1 lead. IPCC/WCRP meeting on Regional Climate issues | 24 journeys across all WGs | 151,536 |
| Climate Sensitivity Workshop | Science meeting with a focus on assessment and use of climate sensitivity in the AR4 | 20 journeys | 125,280 |
| First LA meeting | Estimating 3 to 4 DC/EIT LAs per chapter | 40 journeys | 252,560 |
| <i>Meetings to be organized by other Working Groups with WG1 involvement</i> | | | |
| Article 2 and Key Vulnerabilities | CCT, involving all WGs, WG2 lead. provisionally 24-27 March, 2004, Buenos Aires | 30 journeys across all WGs | 189,420 |
| Climate Change and Water | CCT, involving all WGs, WG2 lead. provisionally August 2004 | 30 journeys across all WGs | 189,420 |
| Technology | CCT, involving all WGs, WG3 lead. | 15 journeys across all WGs | 94,710 |
| Meetings and Workshops – 2005 | | | |
| Second LA meeting | As for first LA meeting | 40 journeys | 252,560 |
| Expert meeting on simple climate models | To review use of SCMs and EMICs in AR4 | 10 journeys | 63,140 |
| Third LA meeting | Includes 1 DC/EIT RE per chapter | 50 journeys | 315,700 |
| Chapter meetings | Provisional for DC/EIT LA support, includes inter-WG meetings – NB budget is for WG1 LAs only | 40 journeys | 252,560 |
| <i>Meetings to be organized by other Working Groups with WG1 involvement</i> | | | |
| Article 2 and Key Vulnerabilities (2 nd) | CCT, involving all WGs, WG2 lead. | 30 journeys across all WGs | 189,420 |
| Meetings and Workshops – 2006 | | | |
| Fourth LA meeting | As for third LA meeting | 50 journeys | 315,700 |
| Technical Summary writing meeting | CLAs only – additional drafting meeting for the TS | 10 journeys | 63,140 |

Note that this table does not include meetings of the IPCC Governing bodies, in particular it does not include Bureau meetings or the WG1 Plenary Session in 2007 to approve the WG1-AR4, nor does it include costs for translation and publication.



INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



**INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE**
IPCC WORKING GROUP I - 9th SESSION
Vienna, 4 November 2003

WG-I: 9th/INF. 1
Item 2
(23.IX.2003)
ENGLISH ONLY

**WORKING GROUP I CONTRIBUTION TO THE
IPCC FOURTH ASSESSMENT REPORT (AR4)**

Background Information

(Submitted by the Co-chairs of Working Group I)

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1. Introduction

This document is provided by the co-chairs of Working Group I for the information of delegates to the IXth Working Group I Session in order to describe the broad structure and rationale of the Working Group I contribution to the IPCC Fourth Assessment Report (WG1-AR4).

The proposed outline for the WG1-AR4 is the result of a more comprehensive consultation and scoping process than has been used in the past, involving two rounds of Government comments and extensive consultations with the international scientific community.

2. The Consultation and Scoping Process

WG1 has obtained a broad range of inputs on the scope of the WG1-AR4 from the expert scientific community over the past 18 months. A series of WG1 Bureau meetings and e-mail discussions were held to consider how best to combine the following inputs:

- Leadership by international scientific experts from many countries in developing the proposed contents and structure of the report at two Scoping Meetings organized by the IPCC, in April 2003 in Marrakech, and September 2003 in Potsdam.
- Feedback from experts at international scientific meetings on presentations of the developing content.
- Participation of the chairs of the World Climate Research Program (WCRP) and the International Geosphere Biosphere Program (IGBP) at IPCC Scoping Meetings.
- Input from climate modeling groups around the world and from WCRP working groups on approaches for enabling model intercomparison during the assessment process.
- Feedback from Convening Lead Authors of the TAR on what key emerging science issues needed to be addressed in the WG1-AR4, and what issues did not need to be repeated in detail.

Government comments on the scope, content, and emerging outlines of the AR4 were solicited prior to each of the IPCC Scoping Meetings and were explicitly taken into account during these meetings. The full set of Government comments has been made available via the IPCC web site for the AR4 scoping meetings as documents AR4 Scop-1/INF.3 and AR4 Scop-2/INF.2. These comments have directly influenced the development of the broad structure of the WG1-AR4, the approach to cross-WG issues including the cross-cutting themes, and the proposed content of specific chapters.

The WG1 TSU is compiling the comments and discussion arising from this extensive scoping process into a document that will be reviewed by the WG1 Bureau. This document will then provide a detailed background for consideration by the Lead Authors in writing the WG1-AR4.

Consensus views expressed by delegates at this meeting, the IXth WG I Plenary Session, will also be included in that document to Lead Authors.

- Observations of sea-level changes will be treated consistently and jointly with other oceanic observations. This organization will enable assessment of the important scientific linkages that are now emerging in this area. Similarly, future sea level projections will be merged with projections of the climate system as a whole.
- The discussion of model evaluation has been merged with that of climate processes, to assess how well key processes are represented within models.
- The carbon cycle and other relevant atmospheric chemistry, aerosol, and biogeochemical cycles are assessed in the context of climate change in one chapter. This organization enables the emerging science of feedbacks in these areas to be considered carefully and consistently.
- A separate chapter will be devoted to the large amount of new paleoclimatic data and related studies, rather than distributing this material across the assessment as in the TAR. This organization will enable a clearer assessment of the quality and use of paleoclimatic data, as distinct from instrumental data, and will provide a stronger perspective for evaluation of recent observed changes in comparison to past climate variations and abrupt climate change.

4. Indicative Page Lengths

In order to meet the requirement that the AR4 be "shorter and more focused", the target for the total page length of the AR4 has been set at about two thirds that of the TAR. The following table gives indicative page lengths for each chapter of the WG1-AR4. Although these lengths may be revised, the intent is to keep within the target total number of pages.

| Chapter | Title | Pages |
|---------|---|-------|
| | Summary for Policymakers | 15 |
| | Technical Summary | 60 |
| 1 | Historical Overview of Climate Change Science | 15 |
| 2 | Changes in Atmospheric Constituents and in Radiative Forcing | 60 |
| 3 | Observations: Atmospheric and Surface Climate Change | 60 |
| 4 | Observations: Changes in Snow, Ice and Frozen Ground | 25 |
| 5 | Observations: Oceanic Climate Change and Sea Level | 35 |
| 6 | Paleoclimate | 30 |
| 7 | Couplings Between Changes in the Climate System and Biogeochemistry | 50 |
| 8 | Climate Models and their Evaluation | 50 |
| 9 | Understanding and Attributing Climate Change | 50 |
| 10 | Global Climate Projections | 50 |
| 11 | Regional Climate Projections | 60 |
| | (total) | 560 |

5. Incorporation of Cross Cutting Themes

The WG1-AR4 will link to five of the seven cross-cutting themes of the AR4 as follows:

- **Uncertainty and Risk:** Uncertainties will be covered comprehensively in all sections of the report. As noted in the concept paper for the Uncertainty and Risk theme, there have been

couplings of biogeochemical cycles with the climate system and the potential roles of feedbacks in future climate. Chapters 8 and 9 will provide a critical contribution to this theme through a new assessment of the uncertainty range for the climate sensitivity parameter (facilitated by the WG1 climate sensitivity workshop to be held in July, 2004). Chapter 10 will consider what is known about the long term response of the climate system to stabilization at different levels of greenhouse gases.

- **Technology:** The WG1 aspect of the Technology theme includes measuring, monitoring and verification of observations. The WG1-AR4 will cover these aspects explicitly in a series of appendices to the chapters based on observations that will cover advances in remote sensing and other technologies relevant to the detection of climate change. The assessment of climate change and climate models in WG1 provides the underlying basis for integrated assessment of the role of technology in climate change.



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INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE

IPCC-XXI/Doc. 2
(25.IX.2003)

TWENTY-FIRST SESSION
Vienna, 3 and 6-7 November 2003

Agenda item: 1
ENGLISH ONLY

PROVISIONAL ANNOTATED AGENDA

1. OPENING OF THE SESSION

- 1.1 The Chair, Dr R.K. Pachauri will call the session to order at 10.00 hrs on Monday, 3 November 2003.
- 1.2 Opening Addresses
 - 1.2.1 Dr Pachauri will make his opening address
 - 1.2.2 A senior representative of the Austrian Government will welcome the IPCC to Vienna and deliver a keynote address
 - 1.2.3 The Secretary-General of the World Meteorological Organization (WMO), Prof. G.O.P. Obasi will address the Session on key climate change issues
 - 1.2.4 The Executive Director of the United Nations Environment Programme (UNEP), Dr K. Töpfer will address the Session on key climate change issues
 - 1.2.5 The Executive Secretary of the United Nations Framework Convention on Climate Change (UN FCCC) Ms. Joke Waller-Hunter will address the session.

1.3 Working Arrangements

The Chair will confirm the working arrangements, which are suggested to include meeting hours of 10.00 to 13.00 for the morning sessions and 15.00 to 18.00 for afternoon sessions.

Simultaneous interpretation in Arabic, Chinese, English, French, Russian and Spanish will be available during the plenary meetings of the session. All in-session documentation will be in English only.

1.4 Approval of the Agenda

The agenda may be amended at any time during the plenary meetings of the session.

2. APPROVAL OF THE DRAFT REPORT OF THE 20TH SESSION (Doc. 3)

The draft report of the Twentieth Session will be submitted by the Secretariat for approval.

3. IPCC PROGRAMME AND BUDGET FOR 2004 TO 2007 (Doc. 4)

addresses *inter alia* the possible preparation of further Technical Papers, e.g. on regions, new products and outreach material.

8. **PROPOSAL FOR FURTHER ACTION ON THE DEVELOPMENT OF PRACTICABLE METHODOLOGIES TO FACTOR OUT DIRECT HUMAN-INDUCED CHANGES IN CARBON STOCKS AND GREENHOUSE GAS EMISSIONS BY SOURCES AND REMOVALS BY SINKS (LULUCF Task 3)**
(Doc. 16 and INF.1)

The Panel decided, through the Chair, to establish a steering committee to conduct a high level scientific meeting that would survey the current understanding of the processes affecting carbon stocks and human influences upon them. The outcomes of the Expert Meeting would be used as a basis for reporting back to the 21st Session of the Panel. The Expert Meeting has been held from 21-23 July in Geneva. The proceedings of the Expert Meeting are contained in document IPCC-XXI/INF.1. The IPCC Chairman will introduce a proposal on how to progress Task 3.

9. **REVISION OF THE 'REVISED 1996 IPCC GUIDELINES FOR NATIONAL GREENHOUSE GAS INVENTORIES'** (Doc. 10)

At the 20th Session the Panel decided that concerning a revision of the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* the TFB should adopt the following four-step approach:

- (1) Definition of the task (beginning after IPCC XX approval through late 2003).
- (2) Preparation for the Scoping meeting.
- (3) Scoping meeting (September 2003).
- (4) Preparation of the Revised Guidelines (2004 – early 2006).

The Scoping meeting was held in Geneva, 16-18 September 2003. The TFB co-chairs will present the proposed terms of reference, table of contents, work plan and timetable, to complete the task for consideration and decision by the Panel.

10. **REVIEW OF THE MANDATE OF THE TASK GROUP ON SCENARIOS FOR CLIMATE AND IMPACTS ASSESSMENT (TG CIA)** (Doc. 13)

The Panel agreed at its 20th session that role and mandate of the TG CIA be reviewed and its membership be refreshed. IPCC-20 could not reach consensus on a proposal for a revised mandate, work programme and membership of the TG CIA and it was agreed that Mr Moss should continue to lead the TG CIA, operating under its existing mandate. Mr. Moss will present a proposal for a revised mandate and workprogramme for consideration and decision by the Panel.

Concerning new membership it was suggested that the same procedure as for selecting Lead Authors is applied (see Appendix A to the Principles Governing IPCC Work, paragraphs 4.2.1 and 4.2.2). The Panel is invited to provide guidance on selecting new members for the TG CIA.

11. **PROCEDURAL MATTERS**

11.1 Election procedures (Doc. 17)

The Panel at its 19th session (Geneva, 17-20 April 2002) decided that well before the next round of elections the Chair would bring to the Panel a proposal describing the rules and procedures to be adopted by the IPCC when conducting elections. The IPCC Bureau at its 28th Session



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INTERGOVERNMENTAL PANEL
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IPCC WORKING GROUP I - 9th SESSION
Vienna, 4 November 2003

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Item 2
(24.IX.2003)
ENGLISH ONLY

**PROPOSED CHAPTER OUTLINE OF THE WORKING GROUP I CONTRIBUTION
TO THE IPCC FOURTH ASSESSMENT REPORT (AR4)**

(Submitted by the Co-chairs of Working Group I)

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- Patterns of Variability
 - Changes in the Tropics and Sub-Tropics
 - Extra-Tropical Changes
 - Changes in Extreme Events
 - Synthesis: Consistency across Observations
- Appendix: Techniques, Error Estimation, and Measurement Systems

4. Observations: Changes in Snow, Ice and Frozen Ground

Executive Summary

- Introduction
 - Changes in Snow Cover and Albedo
 - Sea Ice Extent and Thickness Changes
 - Changes in Glaciers and Small Ice Caps
 - Changes and Stability of Ice Shelves
 - Changes and Stability of Ice Sheets
 - Changes in Frozen Ground
- Appendix: Techniques, Error Estimation, and Measurement Systems

5. Observations: Oceanic Climate Change and Sea Level

Executive Summary

- Introduction
 - Changes in Ocean Salinity, Temperature, Heat Uptake, and Heat Content
 - Biogeochemical Tracers
 - Changes in Ocean Circulation and Water Mass Formation
 - Sea Level: Global and Regional Changes
- Appendix: Techniques, Error Estimation, and Measurement Systems

6. Paleoclimate

Executive Summary

- Introduction
 - Proxy Methods and their Uncertainty
 - Inferred Past Climate System Change
 - Abrupt Climate Change
 - Paleo-Environmental Model Evaluation and Sensitivity
 - Synthesis: Putting the Industrial Era in Perspective
- Appendix: Guide to the Use of Paleoclimatic Information.

- Projected Radiative Forcing
- Timescales of Response
- Climate Change to 2100 and Beyond
- Sea Level Projections
- Scenarios and Simple Models
- Uncertainties in Global Model Projections

11. Regional Climate Projections

Executive Summary

- Introduction
- Evaluation of Regionalization Methods
- Alternative Simple Methods
- Projections of Sub-Continental Scale Climate - Africa, Asia, Australasia, Europe, Latin America, North America, and Polar Regions
- Small Islands
- Uncertainties in Regional Projections

List of Authors and Reviewers

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**WORKING GROUP I CONTRIBUTION TO THE
IPCC FOURTH ASSESSMENT REPORT**

Implementation

(Submitted by the Co-Chairs of Working Group I)

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CEQ 005476

2. Anticipated Timetable

The anticipated timetable of WG1-AR4 related meetings and other activities is as follows:

| Year | Month | Activity |
|------|---------|---|
| 2003 | Nov | CLIVAR/PAGES/IPCC meeting on drought (co-sponsored) |
| | Dec | Call for Government LA nominations |
| 2004 | Apr | Bureau selection of LA teams |
| | Apr | WGCM meeting on feedbacks (co-sponsored) |
| | Apr-May | IPCC Workshop on Uncertainty and Risk |
| | Jun | IPCC/WCRP Regional Climate meeting |
| | Jul | IPCC Workshop on Climate Sensitivity |
| | Sep | First LA meeting, Italy |
| 2005 | Jan | Completion of 'zero order' draft |
| | Feb-Mar | Informal review of 'zero order' draft |
| | May | Second LA meeting, China |
| | May-Jul | Expert meeting on simple climate models |
| | Aug | Completion of first draft |
| | Sep-Oct | 8-week expert review of first draft |
| | Dec | Third LA meeting, New Zealand |
| 2006 | Feb | Completion of second draft |
| | Mar-May | 8-week Government and Expert review of second draft |
| | Jun | Fourth LA meeting, tbd |
| | Aug | Completion of final draft |
| | Oct-Nov | Government review of SPM |
| 2007 | Jan | Submission to WG1 Plenary for approval |

In addition it is expected that subgroups of the LA teams will have additional small meetings to consider specific issues such as development of a chapter or specific boundary issues between chapters. Similarly additional meetings would be used to exchange information in specific areas with other WGs. These are anticipated as occurring in 2005 and are included in the budgetary provisions below but decisions on specific dates or other details are being deferred until 2004.

3. Implementation of Cross Cutting Themes

The cross cutting themes (CCTs) are joint activities of all three Working Groups. Administration of the *Regional Integration* and *Uncertainty and Risk* themes is being carried out by WG1. In addition, as outlined in the respective concept papers, the WG1 contribution to the AR4 is linked to three other CCTs: *Article 2 and Key Vulnerabilities*, *Climate Change and Water*, and *Technology*. The scope and aims of each of these themes is described in the corresponding concept papers that have been made available to Governments separately.

Expert meetings are planned for each of these themes during 2004 and WG1 will ensure that experts from the physical science community, including WG1 Lead Authors where appropriate, are adequately represented at those meetings.

4. Budgetary implications for the IPCC Trust Fund

Anticipated costs to the IPCC Trust Fund for Lead Author and expert meetings in support of the WG1-AR4 are as follows:



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Background Information

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3. Proposed structure of the report

The WG1-AR4 has retained some aspects of the TAR and has a number of important new elements to reflect advances in science as well as Government comments. The structure aims to remain comprehensive in scope but be shorter and more focused than the TAR.

The resulting structure of the WG1-AR4 can be summarized as follows:

- *Introduction (Chapter 1)*: This section will give a short description of the evolution of our understanding of climate change and provide a 'roadmap' to the rest of the report.
- *Radiative Forcing and Observations (Chapters 2, 3, 4, and 5)*: This section of the report addresses the major sources of human and natural influences on climate and describes the observed trends and inter-decadal variability in climate as recorded in the instrumental record. It will cover all relevant aspects of the atmosphere, cryosphere (snow, ice, and frozen ground), and oceans (including sea level).
- *Past and Present Climate Change and Couplings to Biogeochemical Cycles (Chapters 6, 7, 8, and 9)*: This section of the report addresses the scientific understanding of the processes that cause climate change and our ability to explain observed changes using process-based models. It will cover a longer time period than the previous section of the report to provide a perspective for more recently observed changes, and it will assess the ability of a hierarchy of climate models to explain observed climate changes. It will also assess the critical linkages between biogeochemical cycles and climate change.
- *Future Climate Change (Chapters 10 and 11)*: This section of the report will assess projections of future climate change derived from climate models on time scales from decades to centuries at both global and regional scales. It will include coverage of the inertia in different aspects of the climate system, the differences between global and regional climate projections, related sea level rise, implications of stabilization at different levels of greenhouse gas concentrations, and a careful analysis of uncertainties.

The detailed organization differs from that of the TAR in several key ways:

- All of the radiative forcing factors are covered in one chapter. This organization will enable a uniform assessment of the important process-based links between emissions and radiative forcing and a more consistent overall view of key processes and uncertainties in radiative forcing.
- The single observational chapter in the TAR has been divided into three chapters dealing with observations of changes in atmospheric and surface climate, in ice, and in the oceans. This organization will enable an effective assessment of the large amount and new types of observational data that have become available since the TAR as well as improved understanding in areas such as modes of climate variability (e.g. ENSO, NAO).
- Appendices to each of the observational chapters and to the radiative forcing chapter will directly link measurement systems, their uncertainties, and related research needs to the information assessed in the chapters.

significant advances in methods for characterizing uncertainty in the physical climate sciences, e.g. through the use of model ensemble runs and probability distributions for key climate parameters. Such advances will be summarized in Chapter 1 of the WG1-AR4. Lead Authors will be asked to characterize uncertainties objectively where that is possible and to use standard approaches to identifying levels of confidence. The proposed IPCC Workshop on Uncertainty and Risk will consider further ways to improve the description and quantification of uncertainty in the AR4 and its outcomes will be taken into account by WG1.

- **Regional Integration:** WG1-AR4 will ensure regional integration through a carefully coordinated and continuous exchange of information between WG1 and WG2. The sub-continental climate projections will cover the same regions used in the WG2-AR4. As small islands are not generally resolved in current climate models they will be dealt with in a separate section of the regional projections chapter, and larger scale climate of the nearby sub-continental regions will also be discussed where relevant to small islands. Experts at both the AR4 scoping meetings stressed the preliminary nature of current regional scale climate modeling. Thus it appears unlikely that all regions can be addressed in a comprehensive or uniform manner. For this reason a careful assessment of uncertainties associated with regional climate modeling will also be included in Chapter 11. Working Group I supported a recent workshop on regional climate held in July 2003 and is co-sponsoring an expert meeting on the related issue of drought in November 2003. Further meetings will be conducted during the course of the assessment process with the next being planned jointly with WCRP for summer, 2004. These provide an important opportunity to compare methods and data used in different regions, to assist in comparing regional climate models with observations, and to support the transfer of expertise between countries.
- **Water:** The hydrological cycle and its role in the climate system is a key aspect for the WG1-AR4, and consequently much of the report will be directly relevant to the Water theme. Water vapor plays a dominant role in the greenhouse effect, cloud processes, and heat transport within the atmosphere. Change in the hydrological cycle and its feedbacks with climate change are a major focus of climate models. Chapters 3 and 4 will provide both global and regional perspectives on observed changes in the hydrological cycle and will provide key information on the changes in rainfall and snow pack that are required for an assessment of river, lake and water supply changes by WG2. Chapter 7 will include an assessment of recent studies of potential linkages between aerosols and rainfall. Chapter 8 will include an assessment of how well climate models can simulate change in the hydrological cycle, particularly issues such as increase in the frequency of drought and extreme precipitation events. Chapters 10 and 11 will include assessments of the projections of such change at both global and regional levels. Water is closely tied to the regional theme, and the upcoming drought workshop referred to above thus supports development of both themes and their linkages.
- **Key Vulnerabilities (including UNFCCC Article 2 issues):** The WG1-AR4 will provide a broad range of inputs for the consideration of key vulnerabilities in accordance with this theme. This area also provides an important area for exchange of information between WG1 and WG2. Assessment of observations of trends and variability for different components of the climate system in Chapters 3, 4 and 5 will provide a necessary context for consideration of key vulnerabilities. Furthermore, the WG1-AR4 will contribute to this theme through topics that have advanced significantly since the previous assessment. Chapter 6 will provide new information, from paleoclimatic evidence, on the magnitude and rates of abrupt climate change at regional and global levels. Chapter 7 will assess the



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IPCC WORKING GROUP II - 7th SESSION
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WG-II: 7th/Doc. 3
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**PROPOSED CHAPTER OUTLINE OF THE WORKING GROUP II CONTRIBUTION
TO THE IPCC FOURTH ASSESSMENT REPORT (AR4)**

(Submitted by the Co-chairs of Working Group II)

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Content guide for subsequent chapters in Section II:

1. Scope, key issues, summary of TAR conclusions, specific methods
2. Current sensitivity/vulnerability: to weather and climate; and to other stresses; current adaptation
3. Assumptions about future trends: climate, development, technology, etc.
4. Key magnitudes/rates of impacts and future vulnerabilities; costs and other economic aspects
5. Adaptation: practices, options and constraints
6. Implications for sustainable development
7. Key uncertainties, unknowns, research gaps and priorities

3. Fresh Water Resources and their Management

- Water and climate: precipitation, evapotranspiration, soil moisture, snow cover
- Surface water: rivers, lakes, ice cover; quantity and quality
- Groundwater: extraction, salinisation, quality
- Water demand and use: agriculture, industry, energy, domestic
- Extreme events: floods and droughts
- Management options

4. Ecosystems and their Services

- Grasslands and savannahs
- Forests and woodlands
- Deserts
- Wetlands
- Freshwater lakes and rivers
- Mountains
- Oceans, shallow seas and marine ecosystems

5. Food, Fibre, Forestry, and Fisheries

- Crop farming
- Livestock production
- Industrial crops and biofuels
- Forestry
- Fisheries: marine and fresh water
- Global food trade and food security
- Local food supply, regional employment and rural livelihood
- Environmental issues: water use, run-off, land use

6. Coasts and Low-lying Areas

- Natural systems
 - Wetlands, mangroves, coral reefs
 - Deltas, estuaries and lagoons
 - Beaches and cliffed coasts
- Human society

Chapter 13 : Latin America

Chapter 14 : North America

Chapter 15 : Polar Regions (Arctic and Antarctic)

Chapter 16 : Small Islands

IV. ASSESSMENT OF RESPONSES TO IMPACTS

17. Assessment of Adaptation Options, Capacity and Practice

- Methods and concepts: vulnerability, resilience, adaptive capacity
- Assessment of current adaptation practices: current vulnerability, risk management, local knowledge; adapting to current climate and other stresses; policies and institutions
- Assessment of adaptation capacity and options: criteria for decision making; effectiveness, benefits and costs; barriers; equity and security
- Enhancing adaptation capacity: links to mitigative capacity; opportunities; constraints; adaptive learning

18. Assessment of Inter-relationships between Adaptation and Mitigation

- Comparisons (between adaptation and mitigation strategies) of prerequisites for effective implementation: determinants, capacities
- Comparisons of objectives and decision processes: reducing sensitivity vs exposure; dealing with risk
- Comparisons of scale: at global, national, sectoral, local and project levels
- Comparisons of timing: timing of outcomes, including rates of change, time discounting
- Differences between stakeholders: governments, private, civil society
- Comparison of costs and damages avoided
- Synthesis of trade-offs and synergies between adaptation and mitigation; mixes of strategies, uncertainties

19. Assessing Key Vulnerabilities

- Methods and concepts: measuring damage, identifying key impacts and vulnerabilities, and their risk of occurrence
- Approaches to determining levels of climate change for key impacts: metrics, occurrence, timing, uncertainty
- Assessing key global risks
- Assessing risks for key regions and sectors
- Assessment of response strategies to avoid occurrence: stabilisation scenarios; mitigation/adaptation strategies; avoiding irreversibilities, role of sustainable development; treatment of uncertainty

20. Perspectives on Climate Change and Sustainability

- Global and aggregate impacts, and multiple stresses
- Implications for regional development, access to resources and technology, and equity
- Regional differences in impacts and adaptive capacity, and implications for vulnerability and security
- Opportunities and challenges for adaptation (including over long term)
- Uncertainties, unknowns, priorities for research

List of authors, reviewers

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Implementation

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CEQ 005484

- Second Expert Meeting on Climate Change and Sustainable Development (WGIII lead)
- Expert Meeting on Risk and Uncertainty (WGI lead)
- Expert Meeting on Regional Issues (WGI lead)
- Expert Meeting on Technology (WGIII lead)
- Second Expert Meeting on Adaptation and Mitigation (WGIII lead)
- Second Expert Meeting on Article 2 of the UNFCCC and key vulnerabilities (the need for this depends on outcome of the first meeting on this subject)
- Expert meeting on Long Term Mitigation and Stabilisation Scenarios

5. Guidance papers for authors

Two guidance papers for authors will be developed in time for consideration by authors at their first meeting in 2004:

- a) Characterisation of climate and other scenarios for the WGII Assessment. This will be similar to that developed for the WGII SAR and TAR, its purpose being to ensure that a broadly common set of assumptions is adopted by WGII authors.
- b) Description of uncertainty and expression of confidence levels, to achieve a common approach to these descriptions. This will be similar to that incorporated in TAR.

6. Budget for the IPCC Trust Fund.

The expected cost of author and expert meetings is as follows:

Table 1: Detailed summary of WGII budget proposal (note that estimated costs for cross-cutting expert meetings includes costs across all three WGs)

| Activity | Purpose/Comments | DC/EIT support | Cost CHF |
|---|---|--|----------------|
| Meetings and Workshops - 2004 | | | |
| EM on Article 2 and KV | CCT across all 3 WGs – WGII lead; tbc provisionally 24-27 March, Buenos Aires | 30 journeys across all WGs | 189,420 |
| EM on Water | CCT across all 3 WGs – WGII lead | 30 journeys across all WGs | 189,420 |
| First LA/CLA meeting | Vienna, 20-23 Sept - tbc | 80 journeys | 505,120 |
| Note: Meetings in italicised text are being lead by other WGs | | | |
| <i>EM on Risk and Uncertainty</i> | <i>CCT across all 3 WGs – WGI lead</i> | <i>21 journeys across all WGs</i> | <i>132,594</i> |
| <i>Second EM on Sustainable Development</i> | <i>CCT with WGIII – WGIII lead</i> | <i>10 journeys across WG II and WG III</i> | <i>63,140</i> |
| <i>EM on Technology</i> | <i>CCT across all 3 WGs – WGIII lead</i> | <i>15 journeys across all WGs</i> | <i>94,710</i> |
| <i>Second EM on Adaptation - Mitigation</i> | <i>CCT with WGIII – WGIII lead</i> | <i>10 journeys for WGIII and WGII</i> | <i>63,140</i> |
| <i>EM on Regional Issues</i> | <i>CCT across all 3 WGs – WGI lead</i> | <i>24 journeys across all WGs</i> | <i>151,536</i> |
| <i>EM on Long term mitigation and stabilisation scenarios</i> | <i>WGIII lead</i> | <i>20 journeys across WGII and WGIII</i> | <i>126,280</i> |



INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



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INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE
IPCC WORKING GROUP II - 7th SESSION
Vienna, 4-5 November 2003

WG-II: 7th/INF. 1
Item 2
(23.IX.2003)
ENGLISH ONLY

**WORKING GROUP II CONTRIBUTION TO THE
IPCC FOURTH ASSESSMENT REPORT (AR4)**

Background Information

(Submitted by the Co-chairs of Working Group II)

IPCC Secretariat, c/o WMO, 7bis, Avenue de la Paix, C.P. N° 2300, 1211 Geneva 2, SWITZERLAND
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CEQ 005486

2. Current sensitivity/vulnerability: to weather and climate; and to other stresses; current acclimation and adaptation
3. Assumptions about future trends: climate, and other drivers
4. Key magnitudes/rates of impacts and future vulnerabilities; effects on ecosystem services (including economic analysis where possible)
5. Acclimation and adaptation: practices, options and constraints
6. Implications for sustainable development
7. Key uncertainties, unknowns, research gaps and priorities

Suggested length of chapters:

| | |
|---|----------|
| Introduction | 5 pages |
| 1. Assessment of Observed Changes in Natural and Managed Systems | 40 pages |
| 2. New Methods and Scenarios of the Future | 30 pages |
| 3. Fresh Water Resources and their Management | 30 pages |
| 4. Ecosystems and their Services | 30 pages |
| 5. Food, Fibre, Forestry, and Fisheries | 30 pages |
| 6. Coasts and Low-lying Areas | 30 pages |
| 7. Settlement, Industry and Services | 30 pages |
| 8. Human Health | 30 pages |
| 9. Africa | 30 pages |
| 10. Asia | 30 pages |
| 11. Australia and New Zealand | 25 pages |
| 12. Europe | 25 pages |
| 13. Latin America | 30 pages |
| 14. North America | 25 pages |
| 15. Polar Regions (Arctic and Antarctic) | 25 pages |
| 16. Small Islands | 25 pages |
| 17. Assessment of Adaptation Options, Capacity and Practice | 25 pages |
| 18. Assessment of Inter-relationships between Adaptation and Mitigation | 25 pages |
| 19. Assessing Key Vulnerabilities and the Risk from Climate Change | 25 pages |
| 20. Perspectives on Climate Change and Sustainability | 25 pages |
| List of Authors, Reviewers | 10 pages |
| Glossary | 15 pages |
| Index | 35 pages |

TOTAL PAGES 630



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INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



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INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE

IPCC WORKING GROUP III - 7th SESSION
Vienna, 4-5 November 2003

WG-III: 7th/Doc. 3
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PROPOSED CHAPTER OUTLINE OF THE WORKING GROUP III CONTRIBUTION
TO THE IPCC FOURTH ASSESSMENT REPORT (AR4)

(Submitted by the Co-chairs of Working Group III)

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CEQ 005488

Part C - Specific mitigation options in the short and medium term

Regional differentiation will be emphasized in all chapters in this part (section 4-12) as far as literature is available. However, this regional disaggregation may differ by sector and could be along different characteristics, such as level of development, national circumstances or geographical location

Chapters 4-10 will follow the following template. Template issues will only be incorporated when relevant and when literature is available.

Executive summary

- Introduction
- Status of the sector and critical developmental trends and implications
- Emission trends (global and regional)
- Description and assessment of mitigation technologies, options and potentials (technical, economic, market), costs and sustainability
- Positive and negative interactions of mitigation options with vulnerability and adaptation.
- Effectiveness of and experience with climate policies, potentials, barriers and opportunities / implementation issues
- Integrated and non-climate policies affecting emissions of greenhouse gases,
- Technology research, development and transfer
- Long-term outlook/ systems transitions, decision making; inertia and its relation with long-term/short-term choices, decision tools

4. Energy supply
5. Transport and its infrastructure (road, rail, aviation, shipping, including transport fuels)
6. Residential/commercial (including services)
7. Industry
8. Agriculture (including land use and biological carbon sequestration)
9. Forestry (including land use and biological carbon sequestration)
10. Waste management¹

11. Short and medium term mitigation from a cross-sectoral perspective

Executive summary

- Introduction, including system perspective, relationship with chapter 3, key issues across sectors and use of models/analysis
- Cross-sectoral mitigation options: description, characterization and costs
- Technology development, deployment, diffusion and transfer
- Synergies and trade-offs with other policy areas (e.g. air quality, water)
- Overall mitigation potential and costs, including portfolio analysis and cross-sectoral modeling
- Macroeconomic effects
- Spill-over effects (positive and negative)
- Assessment of bottom-up and top-down analysis
- Economic and other generic policy instruments (including taxes, emissions trading)

¹ Recycling of industrial waste would be covered in chapter 7 as was done in TAR.



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INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE

IPCC WORKING GROUP III - 7th SESSION
Vienna, 4-5 November 2003

WG-III: 7th/Doc. 4
Item 3
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**WORKING GROUP III CONTRIBUTION TO THE
IPCC FOURTH ASSESSMENT REPORT**

Implementation

(Submitted by the Co-Chairs of Working Group III)

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2. Anticipated Timetable

The anticipated timetable of WG III-AR4 related meetings and other activities is as follows:

| Year | Month | Activity |
|------|---------|---|
| 2003 | Dec | Call for Government LA nominations |
| 2004 | Apr | Bureau selection of LA teams |
| | Aug | First LA Meeting |
| | Nov | Completion of 'zero order' draft |
| | Nov-Dec | Informal review of 'zero order' draft |
| 2005 | Apr | Second LA meeting |
| | Sep | Completion of first draft |
| | Oct-Nov | 8-week expert review of first draft |
| 2006 | Jan | Third LA meeting |
| | Jun | Completion of second draft |
| | Jul-Aug | 8-week Government and Expert review of second draft |
| | Oct | Fourth LA meeting |
| 2007 | Mar | Completion of final draft |
| | Apr-May | Government review of SPM |
| | Jun | Submission to WG III Plenary for approval |

In addition it is expected that subgroups of the LA teams will have additional meetings to consider specific issues such as development of a chapter or specific boundary issues between chapters. Such meetings will also be conducted to exchange information in specific areas with other Working Groups. These activities are anticipated as occurring in 2005 and are included in the budgetary provisions below but it is not possible to specify dates or other details at this stage.



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INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE
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WORKING GROUP III CONTRIBUTION TO THE IPCC FOURTH ASSESSMENT REPORT (AR4)

Background Information

(Submitted by the Co-chairs of Working Group III)

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CEQ 005492

Part B - Long-term atmospheric stabilization and emission paths (ch. 3)

Part B will assess the stabilization and long-term mitigation scenarios, showing the "mitigation gap" between achieving certain stabilization levels and various scenarios (SRES and others). Key issues covered in this part are: How could stabilization at various levels be achieved by what combination of mitigation options and at what costs? What driving forces are relevant (including the role of technology)? What is the role of the various greenhouse gases and other climate forcing agents? It will discuss the relation between adaptation and mitigation, in the light of decision making on the levels of stabilization of GHG concentrations (art 2 UNFCCC) and uncertainties. Finally it will discuss the implication of stabilization levels for short and medium term technology improvement and emission reductions in the light of social and technical inertia.

The literature assessed in this part would contain insights in short and medium term prospects for technological change and effectiveness of mitigation (covered in depth in Part C) as this forms an important element in long-term studies. Regional dimensions of long-term stabilization assessments will be covered in as far as the literature allows.

Part C - Specific mitigation options in the short and medium term (ch. 4-12)

Part C will assess the literature on specific mitigation options for the short and medium term. It will be organized by sectoral, intersectoral and thematic chapters. Each sector will include emissions and removals of all greenhouse gases. Regional differentiation will be emphasized across part C as far as literature is available. However, this regional disaggregation may differ by sector and could be along different characteristics, such as level of development, national circumstances or geographical location. The focus will be on key issues that differ from region to region.

The sectoral chapters (4-10) will follow one template, which covers all relevant aspects, including mitigation options, costs and potentials, effectiveness of policy instruments for implementation (including experience obtained from both governmental as well as private sector perspectives and overcoming social and behavioral barriers), technology development and transfer issues, system changes. For each sector the interactions of mitigation options with adaptation and vulnerability will be assessed (on a regionally differentiated basis). The influence of non-climate policies on emissions and the potential synergies and trade-offs with climate policy in the respective sector, will be assessed as well (non-climate policies can vary from energy security to energy access, air quality, mobility, land-use, food security, biodiversity and other sustainable development policies). An outlook towards the long-term options (to provide a connection to Part B) will be given. Template issues will only be incorporated when relevant and when literature is available. This approach will provide an integrated picture, that was absent in TAR.

Chapter 11 will cover a number of inter- or cross-sectoral aspects of short and medium term mitigation, that cannot be captured adequately in sector-oriented chapters. Key issues are: overall mitigation potential, macro-economic impacts, economic instruments, technology development and transfer, synergies and trade-offs with other policy areas (such as air pollution abatement), and influences from actions in countries on other countries (spill-over effects).

This part would conclude with a thematic chapter (12) that summarizes and synthesizes information at the macro-economic level on synergies and trade-offs between climate mitigation policies and sustainable development. This chapter will assess how climate change mitigation affects the pursuance of sustainable development goals as well as how greenhouse gas emissions are influenced by pursuing development goals for WEHAB themes, Millennium Development Goals, Agenda 21, poverty reduction and national development plans. This would allow presenting climate



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INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



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INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE

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Agenda item: 6
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A PROPOSAL FOR THE SYNTHESIS REPORT (SYR) FOR THE AR4

(Submitted by the Chairman)

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CEQ 005494

2. Do we need an SyR?

2.1 This question can best be answered on the basis of two criteria. The first relates to the experience of the last SyR and its overall utility as an IPCC product. The second would be based on some perception of the future demand for such a product and its potential for meeting projected requirements in the coming five to six years. Within this framework it can be stated that:

2.1.1 The last SyR has proved to be an extremely valuable document. It is by far the one IPCC product that is the most widely referred to. There is no doubt need to refine the next SyR based on the experience gained with the previous one, but its utility in the past has been highlighted by its users not only among policymakers and decisionmakers in business and industry, but also by academics and researchers, NGOs, students and teachers as well as the public at large.

2.1.2 The demand for the SyR is expected to grow substantially during the current cycle of production of the AR4. This is based on the fact that awareness about and interest in climate change is increasing rapidly among all sections of society. While the research community would continue with intensive use of the WG reports, other stakeholders are expected to seek a comprehensive picture of all aspects of climate change available in a single document. Even the research community that is not directly engaged in work on climate change but has some related interest in the subject would prefer a "single window" source of comprehensive assessment. This projected demand would be enhanced if the IPCC were to produce a SyR which is more reader friendly, more presentable in style and content and more cross-cutting in nature as proposed in this document.

2.2 It can be concluded, therefore, that there is a clear demand for a SyR for the AR4, and that its production would be an extremely worthwhile and valuable undertaking.

3. Key issues for guiding the next SyR

3.1 It is important to consider the eventual perspective of the IPCC AR4 Synthesis Report as a source of scientific and technical knowledge with emphasis on key issues. The primary audience, when designing the structure and contents of the SyR, should be the decision-making community and its needs for knowledge regarding climate change and related issues. The SyR would also have considerable value for the scientific community. If we accept this orientation, then we must understand the context in which people would read the next SyR. These contextual aspects need to be highlighted; as reflected in the following paragraphs.

3.2 At the time of release of the AR4 the global negotiating community is expected to be engaged actively in the process of negotiations for the next steps under the UNFCCC. Negotiators in particular, and the public at large would look for insights and scientific assessment that provide a basis for informed negotiations. This has to be kept in mind in the design and development of the SyR, without compromising on objectivity and scientific rigour.

3.3 The general awareness of the decision-making community would most likely be at a much higher level by the time of the release of the next SyR than was the case when the previous product was published. Expectations, therefore, would be for substantially new knowledge and much more pointed information in the next SyR. In some sense, therefore, the IPCC would be challenged by its own success in the past.

3.4 The most important issue that needs to guide the preparation of the next SyR is the importance of ensuring that the contents are based on solid science. The team that works on the SyR should ensure that the material is not policy prescriptive but policy relevant. While the very purpose of the SyR is to ensure its relevance to policymakers, it is equally important that nothing even mildly suggestive of prescriptive answers should find place in it. Therefore the AR4 SyR must present the conclusions of its assessment in a well structured, easily understandable form, written in clear, direct and precise

- 4.6 It would be desirable, in the AR4 SyR to provide some degree of consistency in the length of the answers. If the question-answer approach is followed, a range not going beyond 7 to 13 pages each would be desirable for creating a balance in the material presented and for keeping the overall length of the SyR within an appropriate limit.
- 4.7 The Working Group summaries and their break up were certainly more uniform than the main body of the SyR. The number of pages covered by the Summary for Policymakers was 15 in the case of Working Groups I and II and 11 pages for Working Group III. The Technical Summaries were respectively 51, 52 and 49 pages. Hence, these components of the Working Group outputs included in the SyR were essentially uniform in size, though not necessarily completely consistent in dealing with some cross cutting issues such as costing methodologies, issues of sustainable development, the assessment of risk and uncertainty and decision analysis frameworks. The reason for this was as the CCT issues had been chosen rather late, compounded by the lack of bibliographical references which led to creation of certain inadequacies. For instance, sustainable development and equity issues and treatment of uniform costing methodologies for impacts and hence for evaluating adaptation costs were dealt with inadequately.
- 4.8 The SPM length for TAR was set at 4000 words, as this is the length that can be managed in a 3-4 day meeting (figures and tables additional). It is suggested that a similar length for the AR4 SyR be maintained.
- 4.9 The AR4 SyR should use an adequate number of diagrams, illustrations, and graphs etc. The break up of these in the TAR SyR is shown in Appendix B (ii). It is important to provide illustrations representing the subjects covered in the SyR. This would ensure that not only would the SyR be able to meet the needs of the scientific and policy communities dealing with climate change, but that the material contained in the form of graphics and pictorial representation would be used by other organisations for popular materials that would have appeal for the public at large. Hence it would also be useful, in the AR4 SyR to produce as many of the diagrams and illustrations in colour as possible. This indeed was the case in the TAR SyR except with the tables that were presented. In any case, it would perhaps be desirable to reduce the number of tables, and try to substitute these with graphs, diagrams and illustrations. It must be kept in mind that a picture is worth a thousand words. An example of this can be seen in figure 4.2 in the previous SyR that shows a pictorial description of the great ocean conveyer belt. If the same material had to be presented in words, it would have taken substantially greater space and with a much weaker impact on the reader. Considering that the SyR will appear as a book including SPM and TS for each WG together with synthesis text, efforts should be started in producing figures and diagrams for the WG reports. The SyR then would appear to be an integrated version. There may also be a need for increasing the number of boxes, which could present specific issues, case studies and any specific analysis to supplement effectively the main text of the report.
- 4.10 The key point is that consideration of communication and outreach should be built into each step of the process of preparing the AR4. One means to ensure that all these aspects are kept in mind right from the beginning of the effort to produce the next SyR would be to arrange a specialist with communications skills, providing inputs for the design and layout of the report.
- 5. Technical content of the next SyR**
- 5.1 If the SyR is to carry a useful message embodying all aspects of the science of climate change, then we would have to structure the questions or themes in a manner that relates them to the body of knowledge, which is most policy relevant in the context described earlier. It is also suggested that the focus of the SyR should be on integrated questions relevant to policy makers, which are reflected in most of the CCTs and to limit single WG issues that are already in the WG SPM's. If we were to look at the policy relevant messages that must be included in the SyR, drawn from outputs from the Working Groups then we should perhaps consider the following:
- 5.2 **Working Group I** – The reader must understand the nature and extent of climate change as it has taken place in the past, the relationship between past human actions and changes that have taken

conclusions from each of the three individual Working Group Reports. All subsequent questions would relate to issues that involve the synthesis of information from two or more Working Group reports.

- 2) *Regional information.* What are the most significant region-specific findings of the AR4?
- 3) *Natural and human-induced change.* How well is it possible to quantify the relative roles of anthropogenic emissions of greenhouse gases included in the UNFCCC as well as aerosols and other influences on past and future climate change and impacts?
- 4) *Lessons from palaeoclimates.* What can palaeoclimate studies tell us about climate change and impacts on decadal to century timescales?
- 5) *Constraints on near-term human-induced change.* What can be said about the nature and impacts of climate change over the next 15-20 years as a result of emissions that have already occurred?
- 6) *Climate change to 2050, 2100 and beyond.* What is the range of possible future climate change and its impacts to 2050, 2100 and beyond under a plausible range of emission scenarios and allowing for inertia and lags in the climate system?
- 7) *Climate change and water.* How important is climate change for the future quantity and quality of available freshwater?
- 8) *Climate extremes and their impacts.* How is future climate change expected to lead to changes in the frequency, severity and impacts of extreme weather and climate events?
- 9) *Climate change and sustainable development.* How can climate issues, influences and information be better integrated into national, regional, and global strategies for addressing other environmental issues and implementing the goals of sustainable development for all countries? And how can sustainable development strategies assist in addressing climate change?
- 10) *Mitigation options.* What are the mitigation options available for early implementation and what are their costs and other social, economic and environmental characteristics inclusive of co-benefits?
- 11) *Integration of adaptation and mitigation.* What are the main considerations which will help guide the balance of climate change mitigation and adaptation strategies, including mitigative and adaptive capacity?
- 12) *Technology and climate change.* What is the role of technology¹ in national, regional, and global strategies for addressing climate change?
- 13) *Science in support of UNFCCC.* How do the findings of the AR4 change the scientific basis for addressing Article 2 of the UNFCCC including the determination of what constitutes "dangerous anthropogenic interference with the climate system"?
- 14) *Uncertain and unresolved issues.* What are the key gaps in information and understanding and the main areas of emerging scientific investigation?

7. How should the SyR be prepared?

¹ The broadset of processes covering know-how, experience, and equipment used by humans to produce service as and transform resources.

Suggestions on the SyR provided by governments prior to the first scoping meeting
(Marrakech 14-16 April, 2003)

Comments relating to, *inter alia*, the AR4 SyR were received from governments before the first scoping meeting held in Marrakech. There were some common points made by several governments, dealing broadly with:

- (a) Q&A format: Simplified policy related questions should be posed with relevant information provided in brief in AR4-SyR
- (b) Incorporate a cross-cutting perspective, focussing on Article 2.
- (c) Better integration of various scientific and policy issues

Other specific suggestions made by governments were as follows:

- **Argentina:**
 1. Format to be compatible with concepts expressed in AR4
 2. Avoid biased interpretations from interest groups.
- **Finland:** The content should be carefully planned in an open process addressing climate change within the wider framework of sustainable development.
- **Germany:** To define the questions to be asked for SyR early in order to foster better linkages between WGs from the beginning.
- **Italy:**
 1. To include policy relevant information for the stakeholders and the SyR should be brief, more concise and more approachable by non-specialist readers.
 2. Follow a thematic approach and be more effective by including relevant material from the report.
 3. Simpler and better-formulated questions reflecting the needs of the Article 2 of the convention.
- **Netherlands:**
 1. Policy relevant scientific themes as structural elements - rephrasing questions asked in TAR-SyR into themes for the AR4-SyR.
 2. CCTS treated as structural elements and therefore extension with key issues within the scope of one WG is needed.
 3. Scientific, technical and socio-economic information relevant to article 2 of the UNFCC as a starting point.
- **Sweden:** Have cross-cutting perspective focusing on Article 2.
- **United Kingdom:**
 1. Introduction, including discussion of Article II theme of the SyR.
 2. Synthesis of the policy relevant information in the three reports under the theme.
 3. Chapters on each CCT (or sub-themes to Art II theme), drawing together the information from each WG report.
 4. Q&A format to be retained but simplified and all relevant material included in the report for ready reference.
 5. Summary of important topics not covered in previous section (few).
 - SyR not to be limited by any proposed guidance from IPCC, instead authors should suggest the inclusion of other important topic.
 - For increased consistency SyR should be written in parallel with the AR4.
- **Uzbekistan:** Alternative approach to a question /answer format in AR4-SyR according to topics or CCTs.
- **Canada:** The "Nine Policy Question" provided an innovative approach to strengthening the science-policy interface. However more thought is required for better integration of various issues.



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INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



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THE FOURTH ASSESSMENT (AR4) PRODUCT SET

(Submitted by the Secretariat)

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- Technical papers can be suitable instruments to prepare information on specific topics and for targeted user groups in a timely and cost effective manner.
- The nature of and responsibility for outreach and dissemination activities needs to be planned and clarified well in advance.

3. The AR4 product mix

The IPCC at its 18th session provided general guidance on the structure of the AR4. Each Working Group report should continue to consist of a Summary for Policymakers (SPM), a Technical Summary (TS) and an underlying report, prepared and peer-reviewed according to the IPCC Principles and Procedures. The Panel also recommended to shorten the underlying reports, while maintaining their comprehensive nature, and increase the focus and emphasis on new findings. It also recommended to shorten the SPMs and make them more comprehensible to policymakers. The Panel will consider at this session a proposal for an AR4 Synthesis Report.

3.1. Primary AR4 products

Following the guidance from the Panel the primary products of the AR4 would be

- Three Working Group contributions in English each of which should not exceed 700 pages
- Summaries for Policymakers of the three Working Group contributions each of maximum 10 pages, translated in all six UN languages
- Technical Summaries of the three Working Group contributions each of approximately 45 pages, translated in all six UN languages
- and subject to the decision by the Panel a Synthesis Report.

Translations, web-version, CD ROM and a set of graphic files from the reports (suitable for power-point presentations) should be made available as soon as possible within six month of the final adoption of the AR4.

3.2. Technical Papers

Technical Papers have been used to summarise or synthesize information from IPCC Reports on specific topics. According to the IPCC procedures Technical Papers have to be based on material already in IPCC Assessment Reports and Special Reports. Considering these procedures it is advisable that the possibility of preparing Technical Papers, which would be based on the AR4 is taken into consideration in the AR4 workprogramme and report structure.

3.2.1. Technical Paper on Water

The Panel at its 20th session asked for a scoping paper for a Technical Paper on climate change and water. The document is available for consideration by the Panel at this session.

3.2.2. Regional Technical Papers

Considering the recommendation by Plenary to shorten the Working Group contributions, while on the other hand requesting more regional information the preparation of regional Technical Papers may offer the possibility to synthesize and highlight climate change relevant information for major regions. While they may not be a substitute for regional chapters in the Working Group contributions they could help to shorten the Working Group reports. Preparatory work for regional Technical Papers could start already during the assessment process and authors for the Technical Papers could be part of the AR4 authors' team. However, consistent with IPCC procedures, actual writing would only commence after the three Working Group contributions have been accepted. A set of regional Technical Papers could be finalised by mid 2008. Costs for an IPCC Technical Paper are in the order of 250.000 to 300.000 SFR. As an example cost estimates for 7 Technical Papers for the main geographical regions, published in English and in those UN languages that are most suitable for the respective region, are provided in Table 1.

Well in time before the completion of the AR4 a detailed plan for outreach activities including seminars, briefing material and training kits for specific target groups or topics should be developed, either by the IPCC itself or in close collaboration with appropriate organisations. This would also include press briefings. The enhanced use of videos and web-based material should be explored. As mentioned above the status of such activities and material in the IPCC product set needs to be clarified.

3.4. Conclusions

Whatever the mix of products would be, an overall management framework that ensures consistent design and timely delivery of the products should be in place well before the completion of the AR4. Contracts need to be in place for publication, production of graphics, CD ROMs, web-based materials and the like. The "look and feel" of the products needs to be agreed, particularly for the posters and the power-point presentations.

TABLE 2
Regional Information -- a summary of the advantages and disadvantages of various options proposed for consideration

| Option proposed | Advantages | Disadvantages | Likely publication date | Estimate of resource implications (where calculated) |
|--|--|---|-------------------------|--|
| Do nothing in addition to AR4 | No cost or other resource implications. | May not meet the call from governments for greater regional detail.

There may in particular be insufficient cross-working group integration of regional information. | mid-2007 | None |
| Regional Technical Papers (up to 7) | Provide cross-working group integration of relevant information from AR4, presented in more regionally focussed way.

Greater flexibility to respond to needs of specific regional groups.

Relatively quick to produce.
Provides synthesis of key policy-relevant issues on a regional basis.

Convenient for users to have such regional information and synthesis of global assessment in a single volume.

Low costs. | Must be based on AR4 science.

Relatively high costs. | Late 2008 | Approx. cost to IPCC TF: 2 Million SFR. |
| Annexes to AR4 Synthesis Report. | Convenient for users to have such regional information and synthesis of global assessment in a single volume.

Low costs. | SYR would be a longer document.

Regional coverage would be restricted by length.

Less flexibility to respond to needs of specific regional groups. | Late 2007 | Included within preparation costs of SYR. |
| Preparation of IPCC outreach material. | Could be hard-copy (brochures, leaflets), web or CD based.

Greater flexibility to respond to needs of specific regional groups. | Not an accepted IPCC product.

Requirements difficult to define. | Late 2008. | Similar to or less than Technical Paper option. |
| IPCC outreach-seminars | Participants would have direct access to | Might need prior preparation of outreach | After Oct | Perhaps 4-6 events. |

Cooney, Phil

II

From: Indur_Goklany@ios.doi.gov
Sent: Friday, October 31, 2003 4:54 PM
To: Ruppe, Loret
Cc: 'Alan C. Schroeder'; Artusio, Christo F (OES); 'Katherine Buckley (E-mail)'; 'Candyce Clark'; 'ccsp@usgcrp.gov'; 'ccsp_info@usgcrp.gov'; 'Christine Dobridge (E-mail)'; Stokes, Carrie; 'fitzgerald.jack@epa.gov'; Gordon, Susan, C (OES); 'Anne Grambsch (E-mail)'; 'Indur Goklany (E-mail 2)'; 'Allinder, Sara M (OES)(IHA)'; 'Joseph Huang'; Barrett, Ko; 'kbickel@oce.usda.gov'; 'Keya Chatterjee (E-mail)'; Peel, Kenneth L.; 'Dina Kruger (E-mail)'; 'Mitchell Baer ("Mitch") (E-mail)'; 'Phil DeCola (E-mail)'; 'Alan Perrin (E-mail)'; Reifsnnyder, Dan A (OES); 'Rick Bradley (E-mail)'; 'rmoss@usgcrp.gov'; 'Robert Dixon'; 'robinson.avis@epamail.epa.gov'; 'Joel Scheraga (E-mail)'; 'Tony Socci (E-mail)'; Talley, Trigg (OES); 'Thomas (Tom) Spence (E-mail)'; 'Bill Hohenstein (E-mail)'; 'Wickwire.Susan@epamail.epa.gov'; Yoffe, Shira B (OES)(EGC)
Subject: Comments on WG II outline

Comments on WG II proposed outline

1. First, I would re-title Section I to read: "Assessment of Observed Trends and Changes in Trends." Then I would move the contents into Chapters 3 through 8. One advantage of this would be one less set of CLAs, LAs, etc. Moreover, I believe it makes more sense, and it would be easier for the reader, to have a chapter for each "sector" that integrates current trends and future projections.
2. The content guide for Chapters 3 through 8 should be expanded to include:
 - Discussion of factors affecting adaptability and vulnerability, how they have evolved in the past, and how they might change in the future, particularly as populations become larger, wealthier (or poorer) and technology advances (or retreats). Generally the latter two factors have not been addressed in impacts assessments. Doing so would lead to more realistic impacts assessments.
 - Discussion of changes projected into the future with and without climate change (in each of the sectoral chapters).
 - I think it would be useful to have a summary of conclusions not only from TAR, but also the analysis (to be) undertaken for AR4.
3. The content guide for Chapters 9 through 16 should be revised similarly (per Item 2).
4. Chapter 17 should have an assessment of future adaptation options given the basic assumptions embedded in the scenarios being used in AR4.
5. Similarly, the discussions in Chapters 19 and 20 should be in the context of projected levels of economic and technological development.

Thanks -- Goks

II. M. 13



INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE
IPCC WORKING GROUP I - 9th SESSION
Vienna, 4 November 2003

WG-I: 9th/Doc. 3
Item 2
(24.IX.2003)
ENGLISH ONLY

*Nov, 4
- WG in Vienna*

**PROPOSED CHAPTER OUTLINE OF THE WORKING GROUP I CONTRIBUTION
TO THE IPCC FOURTH ASSESSMENT REPORT (AR4)**

(Submitted by the Co-chairs of Working Group I)

IPCC Secretariat, c/o WMO, 7bis, Avenue de la Paix, C.P. N° 2300, 1211 Geneva 2, SWITZERLAND
Phone: +41 22 730 8208/8254 Fax: +41 22 730 8025/8013
E-mail: ipcc_sec@gateway.wmo.ch Website: <http://www.ipcc.ch>

Working Group I Contribution to the IPCC Fourth Assessment Report Climate Change 2007: The Physical Science Basis

Summary for Policymakers

Technical Summary

1. Historical Overview of Climate Change Science

Executive Summary

- Introduction
- Progress in Observations
- Progress in Understanding of Radiative Forcing, Processes, and Coupling
- Progress in Climate Modelling
- Advances in Understanding Uncertainties

Appendix: Glossary of Terms

2. Changes in Atmospheric Constituents and in Radiative Forcing

Executive Summary

- Introduction
- Definition and Utility of Radiative Forcing
- Recent Changes in Greenhouse Gases
- Aerosols – Direct and Indirect Radiative Forcing
- Radiative Forcing due to Land Use Changes
- Contrails and Aircraft-Induced Cirrus
- Variability in Solar and Volcanic Radiative Forcing
- Synthesis of Radiative Forcing Factors
- GWPs and Other Metrics for Comparing Different Emissions

Appendix: Techniques, Error Estimation, and Measurement Systems

3. Observations: Atmospheric and Surface Climate Change

Executive Summary

- Introduction
- Changes in Surface Climate
- Changes in the Free Atmosphere
- Changes in Atmospheric Circulation

7. Couplings Between Changes in the Climate System and Biogeochemistry

Executive Summary

- Introduction to Biogeochemical Cycles
- The Carbon Cycle and the Climate System
- Global Atmospheric Chemistry and Climate Change
- Air Quality and Climate Change
- Aerosols and Climate Change
- The Changing Land Surface and Climate
- Synthesis: Interactions Among Cycles and Processes

8. Climate Models and their Evaluation

Executive Summary

- Advances in Modeling
- Evaluation of Contemporary Mean Climate as Simulated by Coupled Global Models
- Evaluation of Large Scale Climate Variability as Simulated by Coupled Global Models
- Evaluation of the Key Relevant Processes as Simulated by Coupled Global Models
- Model Simulations of Extremes
- Climate Sensitivity
- Evaluation of Model Simulations of Thresholds and Abrupt Events
- Representing the Global System With Simpler Models

9. Understanding and Attributing Climate Change

Executive Summary

- Introduction
- Radiative Forcing and Climate Response
- Predictions of the Climate System and their Reliability
- Understanding Pre-Industrial Climate Change
- Understanding Climate Change During the Instrumental Era

Appendix: Methods used to assess predictability

Appendix: Methods used to detect externally forced signals (detection/attribution)

Appendix: Methods used to assess uncertainty

10. Global Climate Projections

Executive Summary

- Introduction



WMO

INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



UNEP

INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE

WORKING GROUP I - 9th SESSION
Vienna, 4 November 2003

WG-I: 9th/Doc. 4
Item 3
(24.IX.2003)
ENGLISH ONLY

WORKING GROUP I CONTRIBUTION TO THE IPCC FOURTH ASSESSMENT REPORT

Implementation

(Submitted by the Co-Chairs of Working Group I)

IPCC Secretariat, c/o WMO, 7bis, Avenue de la Paix, C.P. N° 2300, 1211 Geneva 2, SWITZERLAND
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E-mail: ipcc_sec@gateway.wmo.ch Website: <http://www.ipcc.ch>

CEQ 005507

1. Activities in Support of the Assessment Process

There are a number of important opportunities for expanded communication mechanisms among authors in support of the AR4 that will be considered and developed during the initial phase of the fourth assessment round. It is recognized that not all countries and experts have equal access to the Internet, requiring examination of approaches via the web, email, and CD-ROM, where practical and feasible.

On-line Journal Access

The increasing cost of scientific journals may make it more difficult for experts in some developing countries and countries with economies in transition to access the necessary literature in a timely manner. In order to reduce the effect of this potential constraint on the participation of key experts, arrangements have been entered into with the publishers of several leading scientific journals to provide on-line web-based journal access for WG1 LAs from those countries. Costs of this on-line access are being met by donations from charitable contributions arranged by WG1. The WG1 TSU will maintain password-controlled access to this facility for the WG1 LAs.

Negotiations with additional publishing companies are continuing with a view to extending the present arrangements to other journals including those published in developing countries. In order to improve access to journals in different languages automated translation of journal abstracts will also be investigated. While such translations are limited, their utility in improving access to papers in all languages will be investigated.

Access to Data and Model Results

A characteristic of the physical climate sciences is the increasing use of very large datasets and analyses of large amounts of computer model output. This is clearly an area where coordinated access methods and web-based tools can provide greater efficiency and enable a larger expert community to examine data or model results at first hand.

Experience with previous assessments suggests that in the course of the AR4 the scientific community will provide new compilations of data and model results directly relevant to the report. To ensure that these are as widely accessible as practical, within and across author teams and during the review process, a range of approaches will be used according to the circumstances, such as:

- provision of a central list of links to relevant datasets maintained by scientific organizations – e.g. on a chapter by chapter basis;
- provision of links to web-based tools within scientific organizations for extracting and manipulating data – e.g. GIS based tools for examining observational datasets;
- encouraging author teams to develop technical guidelines on the use of available datasets that are consistent with their assessments and which would become IPCC Supporting Material – e.g. in relation to the use of paleoclimatic data.
- encouraging the climate modeling community to provide their results in an open manner and in ways that support the assessment process – e.g. provision of radiative forcing values used in model runs to enable comparison of climate sensitivities in different models.

The WG1 TSU may take responsibility for maintaining a coordinated set of links to other sites but will not host datasets or model results as part of this activity. The WG1 role will be to work with scientific organizations and the author teams to develop consistent and open approaches to data access. Some web-based facilities relevant to the AR4 will be specific to particular science organizations, some may be appropriately managed within the mandate of the TGCIA, and others may be best managed by existing international science organizations such as IGBP/PAGES.

| Activity | Purpose/ Comments | DC/EIT Support | Cost CHF |
|--|--|-----------------------------|----------|
| Meetings and Workshops – 2004 | | | |
| Uncertainty and Risk Workshop | CCT, involving all WGs, WG1 lead. To consider guidelines for treatment of uncertainty in the AR4, includes all 3 WGs | 21 journeys, across all WGs | 132,594 |
| Regional Climate | CCT, involving all WGs, WG1 lead. IPCC/WCRP meeting on Regional Climate issues | 24 journeys across all WGs | 151,536 |
| Climate Sensitivity Workshop | Science meeting with a focus on assessment and use of climate sensitivity in the AR4 | 20 journeys | 126,280 |
| First LA meeting | Estimating 3 to 4 DC/EIT LAs per chapter | 40 journeys | 252,560 |
| <i>Meetings to be organized by other Working Groups with WG1 involvement</i> | | | |
| Article 2 and Key Vulnerabilities | CCT, involving all WGs, WG2 lead. provisionally 24-27 March, 2004, Buenos Aires | 30 journeys across all WGs | 189,420 |
| Climate Change and Water | CCT, involving all WGs, WG2 lead. provisionally August 2004 | 30 journeys across all WGs | 189,420 |
| Technology | CCT, involving all WGs, WG3 lead. | 15 journeys across all WGs | 94,710 |
| Meetings and Workshops – 2005 | | | |
| Second LA meeting | As for first LA meeting | 40 journeys | 252,560 |
| Expert meeting on simple climate models | To review use of SCMs and EMICs in AR4 | 10 journeys | 63,140 |
| Third LA meeting | Includes 1 DC/EIT RE per chapter | 50 journeys | 315,700 |
| Chapter meetings | Provisional for DC/EIT LA support, includes inter-WG meetings – NB budget is for WG1 LAs only | 40 journeys | 252,560 |
| <i>Meetings to be organized by other Working Groups with WG1 involvement</i> | | | |
| Article 2 and Key Vulnerabilities (2 nd) | CCT, involving all WGs, WG2 lead. | 30 journeys across all WGs | 189,420 |
| Meetings and Workshops – 2006 | | | |
| Fourth LA meeting | As for third LA meeting | 50 journeys | 315,700 |
| Technical Summary writing meeting | CLAs only – additional drafting meeting for the TS | 10 journeys | 63,140 |

Note that this table does not include meetings of the IPCC Governing bodies, in particular it does not include Bureau meetings or the WG1 Plenary Session in 2007 to approve the WG1-AR4, nor does it include costs for translation and publication.



WMO

INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



UNEP

INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE

IPCC WORKING GROUP I - 9th SESSION
Vienna, 4 November 2003

WG-I: 9th/INF. 1
Item 2
(23.IX.2003)
ENGLISH ONLY

WORKING GROUP I CONTRIBUTION TO THE IPCC FOURTH ASSESSMENT REPORT (AR4)

Background Information

(Submitted by the Co-chairs of Working Group I)

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Phone: +41 22 730 8208/8254 Fax: +41 22 730 8025/8013
E-mail: ipcc_sec@gateway.wmo.ch Website: <http://www.ipcc.ch>

1. Introduction

This document is provided by the co-chairs of Working Group I for the information of delegates to the IXth Working Group I Session in order to describe the broad structure and rationale of the Working Group I contribution to the IPCC Fourth Assessment Report (WG1-AR4).

The proposed outline for the WG1-AR4 is the result of a more comprehensive consultation and scoping process than has been used in the past, involving two rounds of Government comments and extensive consultations with the international scientific community.

2. The Consultation and Scoping Process

WG1 has obtained a broad range of inputs on the scope of the WG1-AR4 from the expert scientific community over the past 18 months. A series of WG1 Bureau meetings and e-mail discussions were held to consider how best to combine the following inputs:

- Leadership by international scientific experts from many countries in developing the proposed contents and structure of the report at two Scoping Meetings organized by the IPCC, in April 2003 in Marrakech, and September 2003 in Potsdam.
- Feedback from experts at international scientific meetings on presentations of the developing content.
- Participation of the chairs of the World Climate Research Program (WCRP) and the International Geosphere Biosphere Program (IGBP) at IPCC Scoping Meetings.
- Input from climate modeling groups around the world and from WCRP working groups on approaches for enabling model intercomparison during the assessment process.
- Feedback from Convening Lead Authors of the TAR on what key emerging science issues needed to be addressed in the WG1-AR4, and what issues did not need to be repeated in detail.

Government comments on the scope, content, and emerging outlines of the AR4 were solicited prior to each of the IPCC Scoping Meetings and were explicitly taken into account during these meetings. The full set of Government comments has been made available via the IPCC web site for the AR4 scoping meetings as documents AR4 Scop-1/INF.3 and AR4 Scop-2/INF.2. These comments have directly influenced the development of the broad structure of the WG1-AR4, the approach to cross-WG issues including the cross-cutting themes, and the proposed content of specific chapters.

The WG1 TSU is compiling the comments and discussion arising from this extensive scoping process into a document that will be reviewed by the WG1 Bureau. This document will then provide a detailed background for consideration by the Lead Authors in writing the WG1-AR4.

Consensus views expressed by delegates at this meeting, the IXth WG I Plenary Session, will also be included in that document to Lead Authors.

- Observations of sea-level changes will be treated consistently and jointly with other oceanic observations. This organization will enable assessment of the important scientific linkages that are now emerging in this area. Similarly, future sea level projections will be merged with projections of the climate system as a whole.
- The discussion of model evaluation has been merged with that of climate processes, to assess how well key processes are represented within models.
- The carbon cycle and other relevant atmospheric chemistry, aerosol, and biogeochemical cycles are assessed in the context of climate change in one chapter. This organization enables the emerging science of feedbacks in these areas to be considered carefully and consistently.
- A separate chapter will be devoted to the large amount of new paleoclimatic data and related studies, rather than distributing this material across the assessment as in the TAR. This organization will enable a clearer assessment of the quality and use of paleoclimatic data, as distinct from instrumental data, and will provide a stronger perspective for evaluation of recent observed changes in comparison to past climate variations and abrupt climate change.

4. Indicative Page Lengths

In order to meet the requirement that the AR4 be "shorter and more focused", the target for the total page length of the AR4 has been set at about two thirds that of the TAR. The following table gives indicative page lengths for each chapter of the WG1-AR4. Although these lengths may be revised, the intent is to keep within the target total number of pages.

| Chapter | Title | Pages |
|---------|---|-------|
| | Summary for Policymakers | 15 |
| | Technical Summary | 60 |
| 1 | Historical Overview of Climate Change Science | 15 |
| 2 | Changes in Atmospheric Constituents and in Radiative Forcing | 60 |
| 3 | Observations: Atmospheric and Surface Climate Change | 60 |
| 4 | Observations: Changes in Snow, Ice and Frozen Ground | 25 |
| 5 | Observations: Oceanic Climate Change and Sea Level | 35 |
| 6 | Paleoclimate | 30 |
| 7 | Couplings Between Changes in the Climate System and Biogeochemistry | 50 |
| 8 | Climate Models and their Evaluation | 50 |
| 9 | Understanding and Attributing Climate Change | 50 |
| 10 | Global Climate Projections | 50 |
| 11 | Regional Climate Projections | 60 |
| | (total) | 560 |

5. Incorporation of Cross Cutting Themes

The WG1-AR4 will link to five of the seven cross-cutting themes of the AR4 as follows:

- **Uncertainty and Risk:** Uncertainties will be covered comprehensively in all sections of the report. As noted in the concept paper for the Uncertainty and Risk theme, there have been

couplings of biogeochemical cycles with the climate system and the potential roles of feedbacks in future climate. Chapters 8 and 9 will provide a critical contribution to this theme through a new assessment of the uncertainty range for the climate sensitivity parameter (facilitated by the WG1 climate sensitivity workshop to be held in July, 2004). Chapter 10 will consider what is known about the long term response of the climate system to stabilization at different levels of greenhouse gases.

- Technology: The WG1 aspect of the Technology theme includes measuring, monitoring and verification of observations. The WG1-AR4 will cover these aspects explicitly in a series of appendices to the chapters based on observations that will cover advances in remote sensing and other technologies relevant to the detection of climate change. The assessment of climate change and climate models in WG1 provides the underlying basis for integrated assessment of the role of technology in climate change.



INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE

IPCC WORKING GROUP I - 9th SESSION
Vienna, 4 November 2003

WG-I: 9th/INF. 1
Item 2
(23.IX.2003)
ENGLISH ONLY

**WORKING GROUP I CONTRIBUTION TO THE
IPCC FOURTH ASSESSMENT REPORT (AR4)**

Background Information

(Submitted by the Co-chairs of Working Group I)

IPCC Secretariat, c/o WMO, 7bis, Avenue de la Paix, C.P. N° 2300, 1211 Geneva 2, SWITZERLAND
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CEQ 005515

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- Feedback from experts at international scientific meetings on presentations of the developing content.
- Participation of the chairs of the World Climate Research Program (WCRP) and the International Geosphere-Biosphere Program (IGBP) at IPCC Scoping Meetings.
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Consensus views expressed by delegates at this meeting, the IXth WG I Plenary Session, will also be included in that document to Lead Authors.

Hannegan, Bryan J.

From: Cooney, Phil
Sent: Tuesday, November 04, 2003 8:01 AM
To: Hannegan, Bryan J.
Subject: FW: DOE oversight testimony on Climate C hange Technology

Let's discuss, Phil

-----Original Message-----

From: Sandoli, Robert
Sent: Monday, November 03, 2003 6:36 PM
To: O'Donovan, Kevin M.; Sell, Clay; Cooney, Phil; Russell, Richard M.
Cc: Weatherly, Mark A.; Mertens, Richard A.; Hurst, Kevin D.; McDonald, Christine A.
Subject: DOE oversight testimony on Climate C hange Technology

Gentlemen -

[REDACTED]

B6

Rob
x54573



CCTP Testimony
House Science-O...

----- Forwarded by Robert Sandoli/OMB/EOP on 11/03/2003 06:36 PM -----

From: E. Holly Fitter on 11/03/2003 10:57:42 AM
Record Type: Record

To: See the distribution list at the bottom of this message
cc: James J. Jukes/OMB/EOP@EOP, John D. Burnim/OMB/EOP@EOP
Subject: DOE oversight testimony on Climate C hange Technology

[REDACTED]

B7C

DOE's second statement will be provided for review as soon as it is available.

If you do not respond by 11:00 AM on the attached oversight statement, this Office will assume that you have no objection to clearance as submitted. Thanks.

Climate Change Technology Program
House Science



TP Testimony
se Science N...

004250

- CCTP Testimony House Science Nov 6rev1.doc

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
Washington, D.C. 20503-0001

Monday, November 3, 2003

LEGISLATIVE REFERRAL MEMORANDUM

TO: Legislative Liaison Officer - See Distribution below
FROM: John D. Burnim (for) Assistant Director for Legislative Reference
OMB CONTACT: E. Holly Fitter
E-Mail: E._Holly_Fitter@omb.eop.gov
PHONE: (202)395-3233 FAX: (202)395-5691
SUBJECT: ENERGY Oversight Testimony on Climate Change
DEADLINE: 11:00 AM Tuesday, November 4, 2003

DISTRIBUTION LIST

AGENCIES:

019-Council on Environmental Quality - Debbie S. Fiddelke - (202) 456-3908
025-COMMERCE - Michael A. Levitt - (202) 482-3151
033-Environmental Protection Agency - Benjamin H. Grumbles - (202) 564-5200
059-INTERIOR - Jane Lyder - (202) 208-4371
095-Office of Science and Technology Policy - Maureen O'Brien - (202) 456-6037
006-AGRICULTURE (CR) - Mary Waters - (202) 720-7095
029-DEFENSE - Vic Bernson - (703) 697-1305
052-HEALTH & HUMAN SERVICES - Sondra S. Wallace - (202) 690-7750
114-STATE - VACANT - (202) 647-4463
117 & 340-TRANSPORTATION - Tom Herlihy - (202) 366-4687
069-National Aeronautics and Space Administration - Charles T. Horner III - (202) 358-1948
084-National Science Foundation - Lawrence Rudolph - (703) 292-8060

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dodlrs@dodgc.osd.mil

Hannegan, Bryan J.

From: Cooney, Phil
Sent: Tuesday, November 04, 2003 11:27 AM
To: Fitter, E. Holly; Lil.Owen@hq.doe.gov
Cc: Hurst, Kevin D.; Sandoli, Robert; Hannegan, Bryan J.
Subject: RE: DOC comments on DOE Oversight Testimony on Climate ChangeTechnology]

Bryan and I discussed them this morning and we should be providing comments shortly -- thanks, Phil

-----Original Message-----

From: Fitter, E. Holly
Sent: Tuesday, November 04, 2003 11:05 AM
To: Lil.Owen@hq.doe.gov
Cc: Hurst, Kevin D.; Sandoli, Robert; Cooney, Phil
Subject: DOC comments on DOE Oversight Testimony on Climate ChangeTechnology]

Deletion on page 4 from DOC.

[REDACTED]



KBrown@osec.doc.gov
11/04/2003 11:01:32 AM

Record Type: Record

[REDACTED]

[REDACTED] will

[REDACTED]th,

[REDACTED]

004249

Hannegan, Bryan J.

From: Fitter, E. Holly
Sent: Tuesday, November 04, 2003 12:00 PM
To: Hannegan, Bryan J.
Subject: Energy Oversight Testimony on Climate Change

USDA has another suggested insert. Do you have any objection to passing this on to DOE?
----- Forwarded by E. Holly Fitter/OMB/EOP on 11/04/2003 11:59 AM -----



Annette Holmes <AHOLMES@mailoce.oce.usda.gov>
11/04/2003 11:49:31 AM

Record Type: Record

To: E. Holly Fitter/OMB/EOP
cc:
Subject: Energy Oversight Testimony on Climate Change

[REDACTED]

Annette M. Holmes
Secretary
USDA, Office of the Chief Economist
Room 112-A, Whitten Federal Building
1400 Independence Avenue, SW.
Washington, DC 20250-3810
202-720-5955 (O)
202-690-4915 (F)
E-mail: aholmes@oce.usda.gov

Climate Change Technology Program
House Science

004248

Synthesis and Assessment Products

Leads and Contact Information

(11-08-04)

CY FOCAL POINT

indicates the agency lead(s).)

EMAIL ADDRESS

a trends in the lower atmosphere—steps for understanding and reconciling differences (<2 yrs)

NOAA Thomas Karl thomas.r.karl@noaa.gov
 NASA James Dodge jdodge@hq.nasa.gov
 DOE Rick Petty Rick.Petty@science.doe.gov
 NSF Jay Fein jfein@nsf.gov

1.2 Past climate variability and change in the Arctic and at high latitudes (<2 yrs)

USGS Nick Lancaster (tentative lead) nlancaster@usgs.gov
 NSF Dave Verardo dverardo@nsf.gov
 NOAA John Calder john.calder@noaa.gov
 NASA Waleed Abdalati wabdalati@hq.nasa.gov
 DOE Wanda Ferrell Wanda.Ferrell@science.doe.gov

1.3 Re-analyses of historical climate data for key atmospheric features. Implications for attribution of causes of observed change (2-4 yrs)

NOAA James Laver (tentative lead) James.Laver@noaa.gov
 NOAA Randy Dole rmd@cdc.noaa.gov
 NASA Tsengdar Lee tlee@hq.nasa.gov
 DOE Rickey Petty Rick.Petty@science.doe.gov

2.1 Updating scenarios of greenhouse gas emissions and concentrations, in collaboration with the CCTP. Review of integrated scenario development and application (<2 yrs)

DOE John Houghton John.Houghton@science.doe.gov
 EPA Francisco de la Chesnaye Delachesnaye.Francisco@epamail.epa.gov
 NOAA David Goodrich david.goodrich@noaa.gov
 NASA Phillip Decola pdecola@hq.nasa.gov

2.2 North American carbon budget and implications for the global carbon cycle (<2 yrs)

DOE Roger Dahiman Roger.Dahiman@science.doe.gov
 NASA Diane Wickland dwickland@hq.nasa.gov
 NOAA David Hofmann david.j.hofmann@noaa.gov
 USDA Marilyn Buford mbuford@fs.fed.us
 USGS TBD

2.3 Aerosol properties and their impacts on climate (2-4 yrs)

NOAA Dan Albritton Daniel.L.Albritton@noaa.gov

1 NASA Phillip Decola pdecola@hq.nasa.gov
 2 DOE Peter Lunn Peter.Lunn@science.doe.gov
 3
 4 2.4 Trends in emissions of ozone-depleting substances, ozone layer recovery, and implications for ultraviolet radiation exposure and climate change (2-4
 5 yrs)

6 NOAA Dan Albritton Daniel.L.Albritton@noaa.gov
 7 NASA Michael Kurylo mkurylo@hq.nasa.gov
 8 DOE Peter Lunn Peter.Lunn@science.doe.gov
 9

10 3.1 Climate models and their uses and limitations, including sensitivity, feedbacks, and uncertainty analysis (<2 yrs)
 11 DOE Anjuli Bamzai anjuli.bamzai@science.doe.gov
 12 NASA Don Anderson danders1@hq.nasa.gov
 13 NOAA Ants Leetma Ants.Lleetma@noaa.gov
 14 NSF Jay Fein jfein@nsf.gov
 15

16 3.2 Climate projections for research and assessment based on emissions scenarios developed through the CCTP (2-4 yrs)
 17 NOAA Ants Leetmaa ants.leetma@noaa.gov
 18 NSF Jay Fein jfein@nsf.gov
 19 DOE Anjuli Bamzai anjuli.bamzai@science.doe.gov
 20

21 3.3 Climate extremes including documentation of current extremes; Prospects for improving projections (2-4 yrs)
 22 NOAA Thomas Karl thomas.r.karl@noaa.gov
 23 NOAA Christopher Miller Christopher.D.Miller@noaa.gov
 24 NASA Don Anderson danders1@hq.nasa.gov
 25 NASA Tsengdar Lee tlee@hq.nasa.gov
 26 USGS Nick Lancaster nlancaster@usgs.gov
 27 DOE Anjuli Bamzai anjuli.bamzai@science.doe.gov
 28

29 3.4 Risks of abrupt changes in global climate (2-4 yrs)
 30 USGS Tom Cronin tcronin@usgs.gov
 31 USGS Richard Poore rpoore@usgs.gov
 32 NOAA Mark Eakin Mark.Eakin@noaa.gov
 33 EPA Anne Grambsch Grambsch.Anne@epa.gov
 34 DOE Jeff Amthor Jeff.Amthor@science.doe.gov
 35 NSF Dave Verardo dverardo@nsf.gov
 36

37 4.1 Coastal elevation and sensitivity to sea level rise (<2 yrs)
 38 EPA James Titus titus.jim@EPA.gov
 39 USGS Nick Lancaster nlancaster@usgs.gov
 40 NOAA Mike Szabados mike.szabados@noaa.gov
 41 NASA Eric Lindstrom Eric.J.Lindstrom@nasa.gov
 42 NASA Lawrence Friedl lfriedl@hq.nasa.gov
 43 DOE TBD
 44

1 4.2. State-of-knowledge of thresholds of change that could lead to discontinuities (sudden changes) in some ecosystems and climate-sensitive resources (2-
 2 4 yrs)
 3
 4

Lead TBD

| | | |
|------|-----------------|--|
| EPA | Catriona Rogers | rogers.catriona@epa.gov |
| NOAA | Ned Cyr | Ned.Cyr@noaa.gov |
| NOAA | Don Scavia | Don.Scavia@noaa.gov |
| USGS | Robert Thompson | rthompson@usgs.gov |
| DOE | Jeff Amthor | Jeff.Amthor@science.doe.gov |
| NSF | Phil Taylor | prtaylor@nsf.gov |

11 4.3 Relationship between observed ecosystem changes and climate change (2-4 yrs)

| | | |
|------|------------------------|--|
| USGS | Robert Thompson | rthompson@usgs.gov |
| USDA | Steven Shafer | srs@ars.usda.gov |
| EPA | Jordan West | west.jordan@epa.gov |
| NOAA | Ned Cyr | Ned.Cyr@noaa.gov |
| NOAA | Don Scavia | Don.Scavia@noaa.gov |
| NASA | Paula Bontempi | Paula.S.Bontempi@nasa.gov |
| NSF | Phil Taylor | prtaylor@nsf.gov |
| DOE | Jeff Amthor | Jeff.Amthor@science.doe.gov |

21 4.4 Preliminary review of adaptation options for climate-sensitive ecosystems and resources (2-4 yrs)

| | | |
|------|----------------------------|--|
| USDA | Steven Shafer | srs@ars.usda.gov |
| EPA | Susan Herrod-Julius | herrod-julius.susan@epamail.epa.gov |
| NOAA | Ned Cyr | Ned.Cyr@noaa.gov |
| NOAA | Don Scavia | Don.Scavia@noaa.gov |
| NASA | Woody Turner | wturner@hq.nasa.gov |
| NASA | Edwin Sheffner | eshelfne@hq.nasa.gov |
| USGS | Robert Thompson | rthompson@usgs.gov |
| DOE | Jeff Amthor | Jeff.Amthor@science.doe.gov |

31 4.5. Scenario-based analysis of the climatological, environmental, resource, technological, and economic implications of different atmospheric concentrations of greenhouse gases (2-4 yrs)

| | | |
|------|---|--|
| CCSP | Special CCSP mgmt. structure; topical leads among agencies | |
| NOAA | Dave Goodrich | David.Goodrich@noaa.gov |
| NASA | Lawrence Friedl | Lawrence.A.Friedl@nasa.gov |
| NASA | Tsengdar Lee | tleee@hq.nasa.gov |
| USGS | Gary Clow | clow@usgs.gov |
| EPA | Anne Grambsch | Grambsch.Anne@epa.gov |
| DOE | John Houghton | John.Houghton@science.doe.gov |

41 4.6. State-of-the-science of socioeconomic and environmental impacts of climate variability (2-4 yrs)

| | | |
|------|----------------------|--|
| EPA | Joel Scheraga | scheraga.joel@epa.gov |
| NOAA | Caitlin Simpson | Caitlin.Simpson@noaa.gov |
| NASA | Lawrence Friedl | Lawrence.A.Friedl@nasa.gov |

| | | | |
|----|--|---------------------|--|
| 1 | DOE | John Houghton | John.Houghton@science.doe.gov |
| 2 | | | |
| 3 | 4.7 Within the transportation sector, a summary of climate change and variability sensitivities, potential impacts, and response options (2-4 yrs) | | |
| 4 | DOT | Michael Savonlis | michael.savonlis@fhwa.dot.gov |
| 5 | USGS | Virginia Burkett | Virginia.Burkett@usgs.gov |
| 6 | | | |
| 7 | 5.1 Uses and limitations of observations, data, forecasts, and other projections in decision support for selected sectors and regions (<2 yrs) | | |
| 8 | NASA | Ron Birk | rbirk@hq.nasa.gov |
| 9 | NASA | Terry Mcpherson | terry.mcpherson@ssc.nasa.gov |
| 10 | USGS | Richard Berenknopf | rbern@usgs.gov |
| 11 | EPA | Britta Bierwagen | bierwagen.britta@epamail.epa.gov |
| 12 | DOE | Jeff Amthor | Jeff.Amthor@science.doe.gov |
| 13 | DOE/PNL | Jae Edmonds | jae@pnl.gov |
| 14 | NOAA | ?? | -- |
| 15 | | | |
| 16 | 5.2 Best practice approaches for characterizing, communicating, and incorporating scientific uncertainty in decisionmaking (<2 yrs) | | |
| 17 | NASA | Ron Birk | rbirk@hq.nasa.gov |
| 18 | NASA | Terry Mcpherson | terry.mcpherson@ssc.nasa.gov |
| 19 | NSF | Robert O'Connor | roconnor@nsf.gov |
| 20 | NSF | Cheryl Eavey | ceavey@nsf.gov |
| 21 | EPA | Janet Gamble | gamble.janet@epa.gov |
| 22 | NOAA | Caitlin Simpson | Caitlin.Simpson@noaa.gov |
| 23 | USGS | Richard Berenknopf | rbern@usgs.gov |
| 24 | DOE | Wanda Ferrell | Wanda.Ferrell@science.doe.gov |
| 25 | | | |
| 26 | 5.3 Decision support experiments and evaluations using seasonal to interannual forecasts and observational data (<2 yrs) | | |
| 27 | NOAA | Claudia Nierenberg | Claudia.Nierenberg@noaa.gov |
| 28 | NOAA | Nancy Beller-Slimms | nancy.beller-slimms@noaa.gov |
| 29 | NOAA | Robert Livezey | Robert.E.Livezey@noaa.gov |
| 30 | NASA | Ron Birk | rbirk@hq.nasa.gov |
| 31 | NASA | Shahid Habib | shahid.habib.1@gsfc.nasa.gov |
| 32 | EPA | Janet Gamble | gamble.janet@epa.gov |
| 33 | USGS | Richard Berenknopf | rbern@usgs.gov |
| 34 | USAID | Ayse Tokar | stokar@useid.gov |
| 35 | DOE | TBD | --- |
| 36 | USDA | TBD | --- |
| 37 | | | |

Hannegan, Bryan J.

From: Towcimak, Natalie
Sent: Tuesday, November 04, 2003 11:20 AM
To: Hannegan, Bryan J.
Cc: Cooney, Phil; Peel, Kenneth L.; Fiddelke, Debbie S.
Subject: FW: 2nd piece of DOE Climate Change Testimony

Comments due tomorrow (WED) by 10 am. Thanks!

-----Original Message-----

From: Fitter, E. Holly
Sent: Tuesday, November 04, 2003 11:13 AM
To: Ceq Lrm; epalrm@epamail.epa.gov; CLRM@doc.gov; od@ios.doi.gov; Ostp Lrm; usdaobpaleg@obpa.usda.gov; julie.allen@usda.gov; judy.baldwin@usda.gov; CLRM@doc.gov; dodlrs@dodgc.osd.mil; state-lrm@state.gov; NASA_LRM@hq.nasa.gov; lrm@nsf.gov; dot.legislation@ost.dot.gov; lrm@hhs.gov; Peacock, Marcus; Mertens, Richard A.; Sandoli, Robert; Robinson, Donovan O.; Erbach, Adrienne C.; Wuchte, Erin; Neyland, Kevin F.; Radzanowski, David P.; Rossman, Elizabeth L.; Petrosino, Nicole; Lobrano, Lauren C.; Cooney, Phil; Joseffer, Daryl L.; Whgc Lrm; Ovp Lrm; Nec Lrm; Sell, Clay; O'Donovan, Kevin M.; Miers, Harriet; Stidvent, Veronica V.; McDonald, Christine A.
Cc: Bumim, John D.; Jukes, James J.
Subject: 2nd piece of DOE Climate Change Testimony

Please review the attached Ruden Testimony for the 11/6 House Science hearing on Climate Change and provide comments by 10:00 AM Wednesday 11/5. Thanks.

If you do not respond by 10:00 AM Wednesday, this office will assume that you have no objection to clearance as submitted.



Rudins Testimony
Version 6 Rev...

- Rudins Testimony Version 6 Revised 11-03-03.doc

LRM ID: EHF216B

**EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
Washington, D.C. 20503-0001**

Tuesday, November 4, 2003

LEGISLATIVE REFERRAL MEMORANDUM

TO: Legislative Liaison Officer - See Distribution below
FROM: John D. Burnim (for) Assistant Director for Legislative Reference
OMB CONTACT: E. Holly Fitter
E-Mail: E_Holly_Fitter@omb.eop.gov
PHONE: (202)395-3233 FAX: (202)395-5691
SUBJECT: SECOND ENERGY Oversight Testimony on Climate Change
DEADLINE: 10:00 AM Wednesday, November 5, 2003

DISTRIBUTION LIST

AGENCIES:

019-Council on Environmental Quality - Debbie S. Fiddelke - (202) 456-3908
025-COMMERCE - Michael A. Levitt - (202) 482-3151
033-Environmental Protection Agency - Benjamin H. Grumbles - (202) 564-5200
059-INTERIOR - Jane Lyder - (202) 202-1274

**Climate Change Technology Program
House Science**

004244

CEQ 005532

095-Office of Science and Technology Policy - Maureen O'Brien - (202) 456-6037
006-AGRICULTURE (CR) - Mary Waters - (202) 720-7095
029-DEFENSE - Vic Bernson - (703) 697-1305
052-HEALTH & HUMAN SERVICES - Sondra S. Wallace - (202) 690-7750
114-STATE - VACANT - (202) 647-4463
117 & 340-TRANSPORTATION - Tom Herlihy - (202) 366-4687
069-National Aeronautics and Space Administration - Charles T. Horner III - (202) 358-1948
084-National Science Foundation - Lawrence Rudolph - (703) 292-8060

Hannegan, Bryan J.

From: Conover, David [David.Conover@hq.doe.gov]
Sent: Tuesday, November 04, 2003 4:24 PM
To: Sandoli, Robert; Hurst, Kevin D.; Hannegan, Bryan J.
Subject: final draft CCTP testimony
Importance: High

[REDACTED]

CS

Thanks.

<<CCTP Testimony House Science - final.doc>>

Dave Conover
Director, Climate Change Technology Program
US DOE
202-586-3994 (voice)
240-381-6506 (wireless)
202-586-0092 (fax)

Climate Change Technology Program
House Science

320

004246

CEQ 005535

11/5/2003

Hannegan, Bryan J.

From: Bryan Hannegan [bjhanneg@verizon.net]
Sent: Wednesday, November 05, 2003 9:30 AM
To: Fitter, E. Holly
Cc: Hannegan, Bryan J.
Subject: CEQ Edits -- Rudins Climate Testimony



Rudins testimony bh
edits.doc ...

See attached. Am home this morning and using personal email account.

Bryan Hannegan
CEQ

Climate Change Technology Program
House Science

004245

909

Hannegan, Bryan J.

From: Conover, David [David.Conover@hq.doe.gov]
Sent: Wednesday, November 05, 2003 11:11 AM
To: Sandoli, Robert; Hurst, Kevin D.; Hannegan, Bryan J.
Cc: Marlay, Robert
Subject: House Science hearing
Importance: High

We were given a preview of some likely questions that may come up in tomorrow's hearing. Attached are our prepared answers, which I will deliver orally. Let me know if you have concerns with any of this, please.

<<Science Qs (1234) Rev2.wpd>>

Dave Conover
Director, Climate Change Technology Program
US DOE
202-586-3994 (voice)
240-381-6506 (wireless)
202-586-0092 (fax)

11/5/2003

Cooney, Phil

From: Hannegan, Bryan J.
Sent: Wednesday, November 12, 2003 6:40 PM
To: Cooney, Phil; Perino, Dana M.; Holbrook, William F.
Subject: 1605(b) Q and A

[Redacted]

Thanks.
Bh

-----Original Message-----

From: Anderson, Margot [mailto:Margot.Anderson@hq.doe.gov]
Sent: Wednesday, November 12, 2003 4:10 PM
To: Hannegan, Bryan J.
Cc: Friedrichs, Mark
Subject: Questions for roll out of draft guidelines

<<1605b Q and A (FAQ and Backgrounders) v8.doc>>

[Redacted]

2003 11 13

CEQ
449 PC

Blue Box
11/18/03

Working Group on Climate Change Science and Technology
Tuesday, November 18, 2003, 10:00 a.m. to 12:00 p.m.
Department of Commerce, Rm. 4830

Agenda

| Time | Item | Invited Discussion Lead |
|-------|--|------------------------------------|
| 10:00 | Call to Order | Dep. Sec. Bodman, DOC |
| 10:05 | Legislative and Policy Update | Chairman Connaughton, CEQ |
| 10:20 | International Update | Under Sec. Paula Dobriansky, State |
| 10:35 | Budget Update | Assoc. Director Peacock, OMB |
| 10:50 | CCSP FY05 Crosscut | Ass't. Sec. Mahoney, DOC |
| 11:10 | CCTP FY05 Crosscut | CCTP Dir. Conover, DOE |
| 11:30 | Accomplishments for FY03 and Priorities for FY04 | Dep. Sec. Bodman, DOC |
| 11:50 | Other Topics and General Discussion | Dep. Sec. Bodman, DOC |
| 12:00 | Adjourn | |

~~Reminder: Ken/Deb 12:30 Fri - Col pre-meet at State~~

④ ~~public comment period on Synthesis/Assessment guidelines.~~

②

Office session on crosscut for '05 members, groups, etc..

③ ~~Climate/Energy bill~~
~~env. aspects of en. bill~~
~~cc a subset~~

(b)(5)

Conover - seen.

002044

CEQ 005543

Cooney, Phil

From: PThorne@doc.gov on behalf of sbodman@doc.gov
Sent: Wednesday, November 12, 2003 7:58 PM
To: conrad.c.lautenbacher@noaa.gov; James_Andrews@onr.navy.mil; Olsen, Kathie L.;
emil.frankel@ost.dot.gov; cbeato@osophs.dhhs.gov; gasrar@hq.nasa.gov; Connaughton,
James; jrm@usda.gov; Marburger, John H.; johnson.stephen@epa.gov;
marcus.peacock@omb.eop.gov; nelsondj@state.gov; rcolwell@nsf.gov;
steven_griles@ios.doi.gov; Robert.Card@hq.doe.gov; emsimmons@usaid.gov
Cc: ann_kee@ios.doi.gov; whohenst@OCE.USDA.gov; gpaules@hq.nasa.gov;
watsonhl@state.gov; James.R.Mahoney@noaa.gov; Parrish, Jobi A.; Beale.john@epa.gov;
Kortuem.patrice@epa.gov; Kevin.Kolevar@hq.doe.gov; catlettia@state.gov;
linda.lawson@ost.dot.gov; Lynn_Scarlett@ios.doi.gov; Mleinen@nsf.gov;
mcleave@hq.nasa.gov; mmoore@osophs.dhhs.gov; Cooney, Phil; reifsnyderDA@state.gov;
Scott.Rayder@noaa.gov; jschafer@usaid.gov; KBarrett@usaid.gov;
yvonne.brown@ost.dot.gov; Joy.Viars@hq.doe.gov; Vicki.Horton@noaa.gov;
Pat.A.Simms@noaa.gov; Conde, Roberta L.; PThorne@doc.gov; Kleibacker.lu-ann@epa.gov;
barbara_diehl@ios.doi.gov; David.Conover@hq.doe.gov; RBonjean@doc.gov;
KWhitworth@doc.gov; jackerly@doc.gov; SHawkins@doc.gov; Margarita.Gregg@noaa.gov;
Sherron_White@omb.eop.gov; turekianvc@state.gov; Stendebach.Sue@epamail.epa.gov;
msweeney@nasa.gov
Subject: Interagency Working Group on Climate Change Science and Technology (IWGCCST)

The next meeting of the IWGCCST will be held Tuesday, November 18, 10:00 AM to 12:00 PM at the Department of Commerce in Room 4830. You should use the Secretary's entrance on 15th Street (at the blue awning) for access to the building.

Attached is the agenda for this meeting. Please suggest any additions and/or deletions to the agenda by sending your comments to: Margarita.Gregg@noaa.gov or call (202) 482-3252. You should also confirm your attendance with Margarita if you have not already done so.

Sam

Cooney, Phil

From: PThorne@doc.gov
Sent: Thursday, November 13, 2003 8:50 AM
To: conrad.c.lautenbacher@noaa.gov; James_Andrews@onr.navy.mil; Olsen, Kathie L.;
emil.frankel@ost.dot.gov; cbeato@osophs.dhhs.gov; gasrar@hq.nasa.gov; Connaughton,
James; jrm@usda.gov; Marburger, John H.; johnson.stephen@epa.gov;
marcus.peacock@omb.eop.gov; nelsondj@state.gov; rcolwell@nsf.gov; sbodman@doc.gov;
steven_griles@ios.doi.gov; Robert.Card@hq.doe.gov; emsimmons@usaid.gov
Cc: ann_lee@ios.doi.gov; whohenst@OCE.USDA.gov; gpaules@hq.nasa.gov;
watsonhl@state.gov; James.R.Mahoney@noaa.gov; Parrish, Jobi A.; Beale.john@epa.gov;
Kortuem.patrice@epa.gov; Karen_Y._Knutson@ovp.eop.gov; Kevin.Kolevar@hq.doe.gov;
catlettla@state.gov; linda.lawson@ost.dot.gov; Lynn_Scarlett@ios.doi.gov; Mleinen@nsf.gov;
mcleave@hq.nasa.gov; mmoore@osophs.dhhs.gov; Cooney, Phil; reifsnnyderDA@state.gov;
Scott.Rayder@noaa.gov; jschafer@usaid.gov; KBarrett@usaid.gov;
yvonne.brown@ost.dot.gov; Joy.Viars@hq.doe.gov; Vicki.Horton@noaa.gov;
Pat.A.Simms@noaa.gov; Conde, Roberta L.; Kleibacker.lu-ann@epa.gov;
barbara_diehl@ios.doi.gov; David.Conover@hq.doe.gov; RBonJean@doc.gov;
KWhitworth@doc.gov; jackerly@doc.gov; SHawkins@doc.gov; Margarita.Gregg@noaa.gov;
Sherron_White@omb.eop.gov; turekianvc@state.gov; Stendebach.Sue@epamail.epa.gov;
msweeney@nasa.gov
Subject: Interagency Working Group on Climate Change Science and Technology (IWGCCST)



Agenda IWGCCST
Mtng 18Nov03.do...

Attached is the agenda for the November 18 meeting that I neglected to include last night.
Please forgive me.

Pat Thorne

(See attached file: Agenda IWGCCST Mtng 18Nov03.doc)

Interagency Working Group on Climate Change Science and Technology

**Tuesday, November 18, 2003, 10:00 a.m. to 12:00 p.m.
Department of Commerce, Rm. 4830**

Agenda

| Time | Item | Invited Discussion Lead |
|-------|--|------------------------------------|
| 10:00 | Call to Order | Dep. Sec. Bodman, DOC |
| 10:05 | Legislative and Policy Update | Chairman Connaughton, CEQ |
| 10:20 | International Update | Under Sec. Paula Dobriansky, State |
| 10:35 | Budget Update | Assoc. Director Peacock, OMB |
| 10:50 | CCSP FY05 Crosscut | Ass't. Sec. Mahoney, DOC |
| 11:10 | CCTP FY05 Crosscut | CCTP Dir. Conover, DOE |
| 11:30 | Accomplishments for FY03 and Priorities for FY04 | Dep. Sec. Bodman, DOC |
| 11:50 | Other Topics and General Discussion | Dep. Sec. Bodman, DOC |
| 12:00 | Adjourn | |

1391_f_lcasj003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:"Friedrichs, Mark" <Mark.FRIEDRICHS@hq.doe.gov> ("Friedrichs, Mark"
<Mark.FRIEDRICHS@hq.doe.gov> [UNKNOWN])

CREATION DATE/TIME: 1-DEC-2003 10:24:03.00

SUBJECT:: Probable Change in Date for 1605b Workshop [from 1/14 to 1/15/200 4]

TO:Ted Gayer (CN=Ted Gayer/OU=CEA/O=EOP@EOP [CEA])
READ:UNKNOWN

TO:"Rypinski, Arthur" <Arthur.Rypinski@hq.doe.gov> ("Rypinski, Arthur"
<Arthur.Rypinski@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Pablo Valdez (E-mail)" <ValdezPM2@state.gov> ("Pablo Valdez (E-mail)"
<ValdezPM2@state.gov> [UNKNOWN])
READ:UNKNOWN

TO:"'kbickel@oce.usda.gov'" <kbickel@oce.usda.gov> ("'kbickel@oce.usda.gov'"
<kbickel@oce.usda.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Karpoff, Peter" <Peter.Karpoff@hq.doe.gov> ("Karpoff, Peter"
<Peter.Karpoff@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Jim Hrubovcak (E-mail)" <jhrubovcak@oce.usda.gov> ("Jim Hrubovcak (E-mail)"
<jhrubovcak@oce.usda.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Eule, Stephen" <Stephen.Eule@hq.doe.gov> ("Eule, Stephen"
<Stephen.Eule@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:Christine L. Dobridge (CN=Christine L. Dobridge/OU=CEA/O=EOP@EOP [CEA])
READ:UNKNOWN

TO:"Bowers, Mike" <Mike.Bowers@hq.doe.gov> ("Bowers, Mike" <Mike.Bowers@hq.doe.gov>
[UNKNOWN])
READ:UNKNOWN

TO:Amy L. Farrell (CN=Amy L. Farrell/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

TO:"'TurekianVC@state.gov'" <TurekianVC@state.gov> ("'TurekianVC@state.gov'"
<TurekianVC@state.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Staub, John" <John.Staub@hq.doe.gov> ("Staub, John" <John.Staub@hq.doe.gov> [
UNKNOWN])
READ:UNKNOWN

TO:"Reid Harvey (E-mail)" <Harvey.Reid@epamail.epa.gov> ("Reid Harvey (E-mail)"
<Harvey.Reid@epamail.epa.gov> [UNKNOWN])
READ:UNKNOWN

TO:"McArdle, Paul (EIA)" <Paul.McArdle@eia.doe.gov> ("McArdle, Paul (EIA)"
<Paul.McArdle@eia.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Karrigan Bork (E-mail)" <Karrigan.Bork@ost.dot.gov> ("Karrigan Bork (E-mail)"

Page 1

003493

CEQ 005550

1391_f_lcasj003_ceq.txt

<Karrigan.Bork@ost.dot.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Joe Kruger (E-mail)" <kruger.joe@epa.gov> ("Joe Kruger (E-mail)"
<kruger.joe@epa.gov> [UNKNOWN])
READ:UNKNOWN

TO:"'Indur_Goklany@ios.doi.gov'" <Indur_Goklany@ios.doi.gov> (
"'Indur_Goklany@ios.doi.gov'" <Indur_Goklany@ios.doi.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Dobriansky, Larisa" <Larisa.Dobriansky@hq.doe.gov> ("Dobriansky, Larisa"
<Larisa.Dobriansky@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:Bryan J. Hannegan (CN=Bryan J. Hannegan/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:"Bill Hohenstein (E-mail)" <whohenst@oce.usda.gov> ("Bill Hohenstein (E-mail)"
<whohenst@oce.usda.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Adele Morris (E-mail)" <Adele.Morris@do.treas.gov> ("Adele Morris (E-mail)"
<Adele.Morris@do.treas.gov> [UNKNOWN])
READ:UNKNOWN

CC:"Anderson, Margot" <Margot.Anderson@hq.doe.gov> ("Anderson, Margot"
<Margot.Anderson@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TEXT:
All:

We are very likely to change the date of the public workshop on the proposed 1605b guidelines to Thursday, January 15 (same location, Washington Plaza Hotel).ÿ [EPA has Climate Leaders meeting scheduled for Tuesday and Wednesday, January 13-14, 2004]

Does anyone see a problem with Thursday, January 15?ÿ Speak quickly or forever hold your peace....

Mark

ÿ-----Original Message-----

From: ÿ Friedrichs, Markÿ

Sent:ÿÿ Wednesday, November 26, 2003 1:50 PM

To:ÿÿÿÿ Adele Morris (E-mail); Amy Farrell (E-mail); Bill Hohenstein (E-mail); Bowers, Mike; 'Bryan_J._Hannegan@ceq.eop.gov'; 'Christine_L._Dobridge@oa.eop.gov'; Dobriansky, Larisa; Eule, Stephen; 'Indur_Goklany@ios.doi.gov'; Jim Hrubovcak (E-mail); Joe Kruger (E-mail); Karpoff, Peter; Karrigan Bork (E-mail); 'kbickel@oce.usda.gov'; McArdle, Paul (EIA); Pablo Valdez (E-mail); Reid Harvey (E-mail); Rypinski, Arthur; Staub, John; 'Ted_Gayer@oa.eop.gov'; 'TurekianVC@state.gov'

Subject:ÿÿÿÿÿÿÿ Proposed Revised 1605b General Guidelines issued today

Sorry for the late notice, but the proposed General Guidelines were issued officially today.ÿ Our new web pages are accessible.

-----Original Message-----

From: Davis, Joseph

Sent: Wednesday, November 26, 2003 11:47 AM

To: Friedrichs, Mark

1391_f_lcasj003_ceq.txt

Subject: FW: other agencies who need a heads-up

final release, please send to your agency contacts...

ÿ<< OLE Object: Picture (Metafile) >>

NEWS MEDIA CONTACT:ÿÿÿÿ ÿÿÿÿÿÿÿÿ ÿÿÿÿÿÿÿÿ ÿÿÿÿÿÿÿÿ FOR IMMEDIATE RELEASE
Joe Davis, 202-586-4940 ÿÿÿÿÿÿÿÿ ÿÿÿÿÿÿÿÿ ÿÿÿÿÿÿÿÿ ÿÿÿÿÿÿÿÿ Wednesday,
November 26, 2003
ÿÿÿÿÿÿÿÿ ÿÿÿÿÿÿÿÿ ÿÿÿÿÿÿÿÿ ÿÿÿÿÿÿÿÿ ÿÿÿÿÿÿÿÿ

U.S. Department of Energy Releases Proposed Guidelines

For the Voluntary Reporting of Greenhouse Gas Emissions

Revisions to 1605(b) Registry Provide For Greater Accuracy & Completeness

WASHINGTON, D.C. - The U.S. Department of Energy (DOE) today released proposed guidelines for the voluntary reporting of greenhouse gas emissions and reduction efforts designed to improve the accuracy, verifiability and completeness of greenhouse gas emission data reported under the registry program.ÿ The issuance of this proposal represents another significant step toward the establishment of a broad national effort to reduce greenhouse gas intensity of the U.S. economy, and address the risk of global climate change.

The registry program was established as a voluntary program by section 1605(b) of the Energy Policy Act of 1992.ÿ The proposed revisions to the guidelines for the 1605(b) registry fulfill President George W. Bush's directive that DOE enhance its voluntary reporting program.ÿ The proposed revisions are a key element in the Administration's efforts to encourage and document voluntary efforts to reduce U.S. greenhouse gas emissions.ÿ Changes to the federal registry are necessary to significantly improve the documentation of participating entities' efforts to reduce greenhouse gas emissions.

"We believe these changes will provide a more complete accounting of efforts to reduce greenhouse gas emissions by companies that report on their emission reduction programs.ÿ Such clarity and transparency will encourage increased participation in the registry by those companies that take their reduction programs seriously," said Under Secretary of Energy Robert Card, who led an interagency process that developed the changes to the 1605(b) program.ÿ Participants in the interagency process included DOE, the Department of Commerce, the Environmental Protection Agency, the Department of Agriculture, the Council on Environmental Quality, and the Office of Management and Budget.

The proposed revisions would enable the Department of Energy to fully recognize those participants in the registry who provide an accurate and complete accounting of their efforts to reduce greenhouse gases.ÿ The proposed guidelines will encourage major U.S. companies and institutions to undertake comprehensive reviews of their greenhouse gas emissions and to take actions to reduce emissions.ÿ By emphasizing the importance of providing a full accounting of all greenhouse gas emissions and emission reductions, the revised guidelines are designed to stimulate the type of broad, economy-wide effort that is needed to make substantial progress toward achieving the President's goals for reducing the greenhouse gas intensity of the U.S. economy.

(MORE)

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- 2 -

Under the revised guidelines, a wide range of entities, including utilities, manufacturers, landowners and citizens, will be able to register their greenhouse gas emissions reductions if they provide entity-wide emissions data and demonstrate entity-wide emission reductions after 2002.

Other provisions encourage participation in the registry by small emitters of greenhouse gases, such as households, farmers, and small businesses. Reporters not seeking to register reductions on an entity-wide basis can continue to report emissions and emission reductions without meeting the new entity-wide requirements. However, participants are encouraged to take full advantage of the opportunity to do entity-wide reporting, which can best showcase successful reduction efforts.

Other technical changes to registry reporting requirements are being developed and will be made available for review and comment at a later date.

The proposed guidelines being released today take into consideration the opinions of and strike a balance among the many comments received from states, industry and environmental groups during the numerous stakeholder reviews and meetings conducted by the interagency group. The proposed guidelines will be published in the Federal Register for a 60-day public comment period.

To implement the President's directive, DOE led extensive interagency consultations, issued a public Notice of Inquiry, established a website to distribute background analyses and receive stakeholder comments, held four public workshops (USDA hosted two additional workshops on agricultural and forestry issues), and met with numerous stakeholder groups. DOE will host another public workshop in December 2003 to discuss today's proposal. More information on this workshop and on the proposed guidelines being released today is available at: www.pi.energy.gov/enhancingGHGregistry/ <<http://www.pi.energy.gov/enhancingGHGregistry/>>. Those wishing to offer comment on the proposed guidelines can do so by emailing: 1605bgeneralguidelines.comments@hq.doe.gov <<mailto:1605bgeneralguidelines.comments@hq.doe.gov>>

Revising the general guidelines for the voluntary 1605(b) registry is just one of many actions taken by the Bush Administration to address climate change. The President's approach recognizes that climate change is a century-long challenge, but one the nation must begin to address now. In response, the Bush Administration has taken short-, mid-, and long-term actions to reduce U.S. emissions.

The Department of Energy has led the way in developing the types of major technological advances necessary to reduce substantially global emissions of greenhouse gases, including:

Freedom CAR & Hydrogen Fuel Initiatives -- a \$1.7 billion effort over the next five years to further develop the technologies needed for a future hydrogen economy.

(MORE)

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- 3 -

Carbon Sequestration Leadership Forum - Ministers from more than a
Page 4

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Since taking office, the Bush Administration has developed an ambitious approach to climate change that rests on technology, science, voluntary action, and international cooperation (more details can be found at < <http://www.whitehouse.gov/news/releases/2003/09/20030930-4.html>>)

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Cabinet Committee on Climate Change Science and Technology Integration: President Bush has created an interagency, Cabinet-level committee, co-chaired by the Secretaries of Commerce and Energy, to coordinate and prioritize federal research on global climate science and advanced energy technologies. This committee develops policy recommendations for the President and oversees the sub-Cabinet interagency programs on climate science and energy technologies.

"Climate VISION" Partnership. In February 2003, President Bush announced that 12 major industrial sectors and the membership of the Business Roundtable have committed to work with four of his cabinet agencies (DOE, EPA, DOT, and USDA) to reduce greenhouse gas emissions in the next decade. Participating industries included America's electric utilities; petroleum refiners and natural gas producers; automobile, iron and steel, chemical and magnesium manufacturers; forest and paper producers; railroads; and the cement, mining, aluminum and semiconductor industries.

(MORE)

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- 4 -

Climate Leaders. Announced by EPA Administrator Whitman in February 2002, Climate Leaders is an EPA partnership encouraging individual companies to develop long-term, comprehensive climate change strategies. Under this program, partners set corporate-wide emission reduction goals and inventory their emissions to measure progress. Over 35 major companies are now participating, including General Motors, Alcoa, BP, Pfizer, Staples, International Paper, IBM, Miller Brewing, Eastman Kodak, and Target.

Targeted Incentives for Greenhouse Gas Sequestration. On June 6, 2003, Agriculture Secretary Veneman announced that, for the first time, consideration will be given to management practices that store carbon and reduce emissions of greenhouse gases in setting priorities and implementing USDA's forest and agriculture conservation programs, such as the Environmental Quality Incentives Program and Conservation Reserve Program. USDA would provide financial incentives, technical assistance, demonstrations, pilot programs, education, and capacity building, along with measurements to assess the success of these efforts.

International Cooperation. The U.S. is engaged in extensive international efforts on climate, both through multilateral and bilateral activities. Multilaterally, the U.S. is by far the largest funder of the activities of the U.N. Framework Convention on Climate Change and the Intergovernmental Panel on Climate Change, and leads R&D projects through the Generation IV International Forum, which is developing the next-generation nuclear systems to produce electricity and hydrogen for transportation use without emitting greenhouse gas emissions.

Bilaterally, the U.S. has developed a number of agreements with major international partners, including Russia, Canada, China and the European Union, to pursue research on global climate change and deploy climate observation systems, collaborate on energy and sequestration technologies, and explore methodologies for monitoring and measuring GHG emissions.

-- DOE --

R-03-276

1392_f_uxusj003_ceq.txt

RECORD TYPE: FEDERAL (NOTES MAIL)

CREATOR:"Friedrichs, Mark" <Mark.FRIEDRICHS@hq.doe.gov> ("Friedrichs, Mark"
<Mark.FRIEDRICHS@hq.doe.gov> [UNKNOWN])

CREATION DATE/TIME: 2-DEC-2003 08:07:31.00

SUBJECT:: Another possible date for 1605b workshop: January 12

TO:Christine L. Dobridge (CN=Christine L. Dobridge/OU=CEA/O=EOP@EOP [CEA])
READ:UNKNOWN

TO:Ted Gayer (CN=Ted Gayer/OU=CEA/O=EOP@EOP [CEA])
READ:UNKNOWN

TO:"Rypinski, Arthur" <Arthur.Rypinski@hq.doe.gov> ("Rypinski, Arthur"
<Arthur.Rypinski@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Pablo Valdez (E-mail)" <valdezPM2@state.gov> ("Pablo Valdez (E-mail)"
<valdezPM2@state.gov> [UNKNOWN])
READ:UNKNOWN

TO:"'kbickel@oce.usda.gov'" <kbickel@oce.usda.gov> ("'kbickel@oce.usda.gov'"
<kbickel@oce.usda.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Karpoff, Peter" <Peter.Karpoff@hq.doe.gov> ("Karpoff, Peter"
<Peter.Karpoff@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:"'Indur_Goklany@ios.doi.gov'" <Indur_Goklany@ios.doi.gov> (
'Indur_Goklany@ios.doi.gov'" <Indur_Goklany@ios.doi.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Dobriansky, Larisa" <Larisa.Dobriansky@hq.doe.gov> ("Dobriansky, Larisa"
<Larisa.Dobriansky@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Bowers, Mike" <Mike.Bowers@hq.doe.gov> ("Bowers, Mike" <Mike.Bowers@hq.doe.gov>
[UNKNOWN])
READ:UNKNOWN

TO:Amy L. Farrell (CN=Amy L. Farrell/OU=OMB/O=EOP@EOP [OMB])
READ:UNKNOWN

TO:"'Kerr.Tom@epa.gov'" <Kerr.Tom@epa.gov> ("'Kerr.Tom@epa.gov'" <Kerr.Tom@epa.gov>
[UNKNOWN])
READ:UNKNOWN

TO:"'TurekianVC@state.gov'" <TurekianVC@state.gov> ("'TurekianVC@state.gov'"
<TurekianVC@state.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Staub, John" <John.Staub@hq.doe.gov> ("Staub, John" <John.Staub@hq.doe.gov> [
UNKNOWN])
READ:UNKNOWN

TO:"Reid Harvey (E-mail)" <Harvey.Reid@epamail.epa.gov> ("Reid Harvey (E-mail)"
<Harvey.Reid@epamail.epa.gov> [UNKNOWN])
READ:UNKNOWN

TO:"McArdle, Paul (EIA)" <Paul.McArdle@eia.doe.gov> ("McArdle, Paul (EIA)"

1392_f_uxusj003_ceq.txt

<Paul.McArdle@eia.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Karrigan Bork (E-mail)" <Karrigan.Bork@ost.dot.gov> ("Karrigan Bork (E-mail)"
<Karrigan.Bork@ost.dot.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Jim Hrubovcak (E-mail)" <jhrubovcak@oce.usda.gov> ("Jim Hrubovcak (E-mail)"
<jhrubovcak@oce.usda.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Eule, Stephen" <Stephen.Eule@hq.doe.gov> ("Eule, Stephen"
<Stephen.Eule@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TO:Bryan J. Hannegan (CN=Bryan J. Hannegan/OU=CEQ/O=EOP@EOP [CEQ])
READ:UNKNOWN

TO:"Bill Hohenstein (E-mail)" <whohenst@oce.usda.gov> ("Bill Hohenstein (E-mail)"
<whohenst@oce.usda.gov> [UNKNOWN])
READ:UNKNOWN

TO:"Adele Morris (E-mail)" <Adele.Morris@do.treas.gov> ("Adele Morris (E-mail)"
<Adele.Morris@do.treas.gov> [UNKNOWN])
READ:UNKNOWN

CC:'Michael Scholand' <MScholand@Navigantconsulting.com> ('Michael Scholand'
<MScholand@Navigantconsulting.com> [UNKNOWN])
READ:UNKNOWN

CC:"Anderson, Margot" <Margot.Anderson@hq.doe.gov> ("Anderson, Margot"
<Margot.Anderson@hq.doe.gov> [UNKNOWN])
READ:UNKNOWN

TEXT:

We are now considering yet another date, Monday, January 12, for the 1605b workshop on the proposed General Guidelines. Any objections?

-----Original Message-----

From: Friedrichs, Mark

Sent: Monday, December 01, 2003 10:20 AM

To: Adele Morris (E-mail); Amy Farrell (E-mail); Bill Hohenstein (E-mail); Bowers, Mike; 'Bryan_J._Hannegan@ceq.eop.gov'; 'Christine_L._Dobridge@oa.eop.gov'; Dobriansky, Larisa; Eule, Stephen; 'Indur_Goklany@ios.doi.gov'; Jim Hrubovcak (E-mail); Joe Kruger (E-mail); Karpoff, Peter; Karrigan Bork (E-mail); 'kbickel@oce.usda.gov'; McArdle, Paul (EIA); Pablo Valdez (E-mail); Reid Harvey (E-mail); Rypinski, Arthur; Staub, John; 'Ted_Gayer@oa.eop.gov'; 'TurekianVC@state.gov'

Cc: Anderson, Margot

Subject: Probable Change in Date for 1605b workshop [from 1/14 to 1/15/2004]

Importance: High

All:

We are very likely to change the date of the public workshop on the proposed 1605b guidelines to Thursday, January 15 (same location, Washington Plaza Hotel). [EPA has Climate Leaders meeting scheduled for Tuesday and Wednesday, January 13-14, 2004]

Does anyone see a problem with Thursday, January 15? Speak quickly or forever hold your peace....

Mark

ÿ-----Original Message-----

From: ÿ Friedrichs, Markÿ
Sent:ÿÿ Wednesday, November 26, 2003 1:50 PM
To:ÿÿÿÿ Adele Morris (E-mail); Amy Farrell (E-mail); Bill Hohenstein (E-mail); Bowers, Mike; 'Bryan_J._Hannegan@ceq.eop.gov'; 'Christine_L._Dobridge@oa.eop.gov'; Dobriansky, Larisa; Eule, Stephen; 'Indur_Goklany@ios.doi.gov'; Jim Hrubovcak (E-mail); Joe Kruger (E-mail); Karpoff, Peter; Karrigan Bork (E-mail); 'kbickel@oce.usda.gov'; McARDle, Paul (EIA); Pablo Valdez (E-mail); Reid Harvey (E-mail); Rypinski, Arthur; Staub, John; 'Ted_Gayer@oa.eop.gov'; 'TurekianVC@state.gov'

Subject:ÿÿÿÿÿÿÿ Proposed Revised 1605b General Guidelines issued today

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-----Original Message-----

From: Davis, Joseph
Sent: Wednesday, November 26, 2003 11:47 AM
To: Friedrichs, Mark
Subject: FW: other agencies who need a heads-up

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ÿ<< OLE Object: Picture (Metafile) >>

NEWS MEDIA CONTACT:ÿÿÿÿ ÿÿÿÿÿÿÿÿ ÿÿÿÿÿÿÿÿ ÿÿÿÿÿÿÿÿ FOR IMMEDIATE RELEASE
Joe Davis, 202-586-4940 ÿÿÿÿÿÿÿÿ ÿÿÿÿÿÿÿÿ ÿÿÿÿÿÿÿÿ ÿÿÿÿÿÿÿÿ Wednesday,
November 26, 2003
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(MORE)

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(MORE)

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- 3 -

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(MORE)

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-- DOE --

R-03-276

Hannegan, Bryan J.

From: Friedrichs, Mark [Mark.FRIEDRICHS@hq.doe.gov]
Sent: Tuesday, December 02, 2003 5:49 PM
To: Bill Hohenstein (E-mail); Bill Irving (E-mail); Nickerson, William; Bowers, Mike; Hannegan, Bryan J.; Bryce Stokes (E-mail); Dobridge, Christine L.; Jim Hrubovcak (E-mail); 'joelbrow@nmsu.edu'; Prusacki, Joseph; Karpoff, Peter; Katie Bickel (E-mail); 'Marilyn Buford'; McArdle, Paul (EIA); Pablo Valdez (E-mail); Richard Birdsey (E-mail); Sacquety, Roger (EIA); Staub, John; Gayer, Ted
Cc: Anderson, Margot; Rypinski, Arthur; 'Michael Mondshine (E-mail) (E-mail)'; Richards, Richard (EIA)
Subject: Papers for tomorrow's meeting of Working Group on 1605b Basic & R eductions Technical Guidelines
Importance: High
Follow Up Flag: Follow up
Flag Status: Flagged

All: [REDACTED]
 [REDACTED]
 [REDACTED] page bar chart of electric sector emissions

<<Options for Calculating Elec Gen Reductions 12-2.doc>> <<Baseline Guidance 2a.doc>> <<Emissions Comparison- Nov. 171.doc>>

-----Original Message-----

From: Friedrichs, Mark
Sent: Tuesday, December 02, 2003 3:12 PM
To: Bill Hohenstein (E-mail); Bill Irving (E-mail); Bill Nickerson (E-mail); Bowers, Mike; Bryan Hannegan (E-mail); Bryce Stokes (E-mail); Christine_L_Dobridge@cea.eop.gov; Jim Hrubovcak (E-mail); joelbrow@nmsu.edu; Joseph_Prusacki@cea.eop.gov; Karpoff, Peter; Katie Bickel (E-mail); Marilyn Buford; McArdle, Paul (EIA); Pablo Valdez (E-mail); Richard Birdsey (E-mail); Sacquety, Roger (EIA); Staub, John; Ted_Gayer@cea.eop.gov
Cc: Anderson, Margot; Rypinski, Arthur; 'Michael Mondshine (E-mail) (E-mail)'; Richards, Richard (EIA)
Subject: Reminder: Tomorrow's meeting of Working Group on 1605b Basic & Reductions Technical Guidelines
Importance: High

Hope to see (or hear from) all of you tomorrow at 10 am. I have attached a draft agenda and may still circulate other documents later today.

<< File: Agenda for Dec 3 meeting.doc >>

-----Original Message-----

From: Friedrichs, Mark
Sent: Monday, November 24, 2003 4:13 PM
To: Bill Hohenstein (E-mail); Bill Irving (E-mail); Bill Nickerson (E-mail); Bowers, Mike; Bryan Hannegan (E-mail); Bryce Stokes (E-mail); Christine_L_Dobridge@cea.eop.gov; Jim Hrubovcak (E-mail); joelbrow@nmsu.edu; Joseph_Prusacki@cea.eop.gov; Karpoff, Peter; Katie Bickel (E-mail); Marilyn Buford; McArdle, Paul (EIA); Pablo Valdez (E-mail); Richard Birdsey (E-mail); Sacquety, Roger (EIA); Staub, John; Ted_Gayer@cea.eop.gov
Cc: Anderson, Margot; Rypinski, Arthur; Michael Mondshine (E-mail) (E-mail); Richards, Richard (EIA)
Subject: First meeting of Working Group to Develop/Review 1605b Basic & Reductions Technical Guidelines

**Greenhouse Effects/1605(b)
 Technical Guidelines**

004265 CEQ 005564

All:

This is to confirm that the first meeting of the working group will be 10-Noon on Wednesday, December 3, in room 7B-040 of the Forrestal Building, 1000 Independence Ave., SW. [redacted] I reserved 15 lines, which should be sufficient, but please let me know whether you intend to attend in person or call in.

Note that I have added a few names to the list, all of which are involved in the development of the technical guidelines for agricultural and forestry sequestration, which is being led by USDA. If you would like to be removed from this list, please let me know at any time.

I will send out an agenda for the meeting and a couple of short papers on December 1 or 2, just prior to the meeting. Meanwhile, I have again attached a copy of a draft outline of the Technical Guidelines, which will be one of the items on the agenda for discussion.

Thanks.

Mark Friedrichs
202-586-0124

-----Original Message-----

From: Friedrichs, Mark

Sent: Thursday, November 20, 2003 1:46 PM

To: Bill Hohenstein (E-mail); Bill Irving (E-mail); Bill Nickerson (E-mail); Bowers, Mike; Bryan Hannegan (E-mail); Christine_L_Dobridge@cea.eop.gov; Jim Hrubovcak (E-mail); Joseph_Prusacki@cea.eop.gov; Karpoff, Peter; Katie Bickel (E-mail); McArdle, Paul (EIA); Pablo Valdez (E-mail); Sacquety, Roger (EIA); Staub, John; Ted_Gayer@cea.eop.gov

Cc: Anderson, Margot; Rypinski, Arthur

Subject: Formation of Working Group to Develop/Review 1605b Basic & Reductions Technical Guidelines

All:

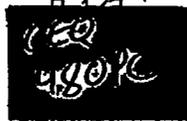
The recipients of this e-mail have volunteered or been volunteered to participate in an interagency working group that I hope will help me and others at DOE develop Technical Guidelines to implement major elements of the revised 1605b General Guidelines, which should be released in the near future for 60 days of public comment. [If you do not believe you should be on my list, please let me know.]

I would like to hold the first meeting of this group on Wednesday, December 3, at 10 am in the Forrestal Building, 1000 Independence Avenue, Room 7B-040. I will establish a call-in number for those who would like to participate, but can't attend in person. Please let me know ASAP whether you can participate in this meeting, either in-person or by phone.

[Large redacted area containing multiple lines of blacked-out text]

Happy Thanksgiving to all. See you in December.
<< File: TG Outline for Reductions v3.doc >>

Mark D. Friedrichs, PI-40
Policy and International Affairs
U.S. Department of Energy
202-586-0124



II. 1115

FAX

**U.S. Delegation Office
UNFCCC COP-9
Milan, Italy
Fax 39-02-460-979
Telephone 39-02-460-710**

Date:

TO: Phil Cooney

FAX: 001-202-456-2710

FROM: Ka Peel

No. of pages (including cover page): 3

Phil, here's the IPcd
attache on Castles + Henderson,

Ka

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WMO

INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



UNEP

Milan, 8 December 2003

PRESS INFORMATION

The IPCC is an intergovernmental body that assesses all aspects of climate change. It mobilises the best experts from all over the world, who work diligently in bringing out the various reports of this body on a regular basis. The Third Assessment Report (TAR) of the IPCC was released in 2001 through the collective efforts of around 2000 experts from a diverse range of countries and disciplines. All of IPCC's reports go through a careful two stage review process by governments and experts and acceptance by the member governments composing the Panel.

The IPCC has currently embarked on the production of its Fourth Assessment Report (AR4). The global community needs to know that rigorous preparations have been undertaken for structuring the AR4. Two intensive scoping meetings were held in April at Marrakesh and in September in Potsdam respectively to prepare the intellectual underpinnings of various components of the AR4. Over 130 experts participated in the first scoping meeting for three full days and over 150 participants in the second meeting for four days. Collectively, this represented over a thousand person days of teamwork, to which must be added the extremely useful inputs provided by governments and other organisations, involved in this exercise. The outlines developed during the scoping process were adopted by governments at the recent plenary session of the Panel in Vienna, in November this year.

In recent months some disinformation has been spread questioning the scenarios used by the IPCC as developed in its Special Report on Emissions Scenarios 2000 (SRES). Like all reports published by the IPCC, this publication was based on an assessment of peer reviewed literature available at the time of the preparation of the report and subject to the review and acceptance procedures followed by the IPCC. As the work of the IPCC proceeds further any new literature that becomes available in this field will be assessed.

Criticism of IPCC's work has been mounted by so called "two independent commentators" Ian Castles and David Henderson (referred to in subsequent paragraphs as C&H). Mr. Ian Castles is a member of the Lavoisier Group, a group founded in Australia, whose sole mission is to oppose anything that aims to protect the environment.

Arguments of C&H allege that scenarios used by the IPCC are based on a method of income-gap closure, using Market Exchange Rates (MEX) rather than purchasing power parity (PPP), leading to unrealistically high economic growth rate assumptions for developing countries. This is factually incorrect. Economic growth rate assumptions were carefully chosen in line with historic data for countries that achieved catching-up (Japan, Korea). In translating economic growth into greenhouse gas emissions, PPP was taken into account in the various models that were used. Income projections were expressed in both MEX as well as PPP terms by one of the participating models (IIASA's MESSAGE model). The fact that other model results were expressed mostly in MEX terms reflects the complexities of MEX vs PPP conversions in

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CEQ 005569

longer-term projections. It might be recalled that organizations such as The World Bank and the US Energy Information Administration use MEX for their projections.

More recently, in the wake of C&H's unfounded criticism, some further detailed model runs have been carried out by Alan Manne of Stanford University and R. Richels of the Electric Power Research Institute. Their results show very minor differences with PPP in comparison with the use of MEX. The claim of C&H, therefore, that there is an upward bias in the SRES scenarios is totally unfounded.

The criticism voiced by C&H that the scenarios produced in the SRES imply "historically implausible" growth rates in developing countries was obviously put forward in haste. This even contradicts a comment by Ian Castles posted on a website called "Online Opinion" in July 2001 stating that "of the developing world's 4.8 billion people, 2/3rd live in countries that have attained faster growth rates in GDP per head than the United States since 1973". He further states that "growth has been accelerating in the most populous developing countries". More recently C&H in a paper published in the journal Energy and Environments have accepted that a higher growth in per capita income in poorer countries when compared to countries with higher levels of affluence, are both "plausible and well attested in economic history".

C&H equate economic growth to proportionate increase in emissions of GHGs, since the world in their view seems determined by statistical regressions. They completely ignore the fact that higher economic growth generally results in higher R&D, more rapid capital turnover, higher resource use efficiency including energy efficiency and higher preference for pollution controls, all of which could lead to reduction in GHGs emissions. Have C&H looked at the trajectory of China's emissions in the last 20 years? Has China's rapid growth not been accompanied by impressive improvements in energy efficiency and carbon intensity? Have they ever considered that lower GDP growth rates may actually lead to *higher* GHGs emissions in the absence of climate policy? There is absolutely no reason to believe that, in the longer term, lower economic development would, all other things being equal, result in lower emissions.

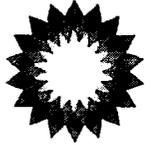
bp

Ross J. Pillari

President, BP America Inc.
Group Vice President, BP plc

Copies to...

P. Cooney
R. Hennigan
D. Fiddike
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December 10, 2003

Mr. James Connaughton
Chairman
Council on Environmental Quality
730 Jackson Place, NW
Washington, DC 20503

Dear Chairman Connaughton,

I am pleased to enclose a copy of a speech on Climate Change, presented by John Browne, Group Chief Executive BP p.l.c. This speech to the Institutional Investors Group is an important next step in BP's thinking on climate change.

In this speech, BP reinforces the role of the oil and gas industry in the long-term actions required to reduce the consequences of human activity on climate change. Specifically, we confirm our own commitment to our existing targets for greenhouse gas emissions reductions and our participation and investment in longer-term options.

The continued use of oil and gas in a sustainable manner is an important factor in meeting the world's continued economic growth and improved quality of life. The speech outlines many of the proactive options being considered or already in place and calls for continued precautionary action.

BP remains committed to improving the world we live in, and we believe that as oil and gas company we have an important role to play in developing sustainable options for future progress.

I encourage you to read the speech and to use it to stimulate dialog and supportive action.

Very truly yours,

Ross J. Pillari

RJP/njc

Enclosure

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Climate Change

Lord Browne, Group Chief Executive, BP p.l.c.
Speaks to the Institutional Investors Group, Gibson Hall, Bishopsgate, London
26th November 2003

Ladies and gentlemen, it's a great pleasure to be here and to have the chance to discuss the impact of concerns about the level of carbon in the atmosphere on businesses such as BP.

I'd like to thank the IIGCC and the Carbon Trust for giving us the opportunity to share some of our thinking.

The actual or perceived consequences of human activity on the global climate - what is generally called climate change - matter to BP because we're interested in the long-term sustainability of what we do. We want to be able to continue to sustain our core activity - applying our skills and experience to produce and develop hydrocarbons.

The interest in sustainability is driven by our shareholders who are predominantly pension funds. They look for sustainability in their investments - companies capable of regenerating their activity and their ability to produce revenue and wealth on a long term basis.

Today's subject covers just one aspect of sustainability, but it is one of fundamental importance.

The detailed understanding of the causes and consequences of climate change is still provisional, of course. Modelling and analysis of the evidence continues but there is already a sufficient body of analysis to suggest that precautions need to be taken.

As a business we need to be able to respond to the concern now, even if significant uncertainty exists. We have to take the appropriate steps in order to ensure that our business remains sustainable.

That's our starting point.

It is now six years since we first acknowledged that precautionary action was necessary.

Over those six years the work we and many other companies have done has given us confidence that business does have a positive role to play in the process. And it has given us the confidence that the future of oil and gas is secure and sustainable.

We've shown that it is possible to reduce emissions of methane and CO₂ from our own operations - by eliminating waste and leaks and by applying technology, for instance to eliminate the venting of methane.

We've found that an emissions trading system, which ensures that resources are applied in the right places, is the best way to keep costs down, and we've demonstrated that, far from being a cost burden, reducing emissions by eliminating waste can add value.

To focus our efforts, we set a target to reduce our own emissions to 10% below 1990 levels by 2010 in line with the spirit of the Kyoto Protocol.

We were able to meet that target by the end of 2001, 9 years ahead of plan, for three simple reasons.

Firstly, the aspiration resonated with the expectations of our staff. Doing something positive for the global environment generated enormous enthusiasm and creativity.

Secondly, through a combination of emission caps and allowance trading, reducing emissions became embedded within the business - the responsibility of everybody.

Thirdly, we found that efficiency and emission reduction was good business. So while some remained locked in a debate about predicting the cost of reductions, our staff were pursuing

activities that added value. In fact within the first three years we added \$650M of value, for an investment of around \$20M.

So we've begun to build a track record of delivery.

Last year we updated our position, building on what had been achieved.

Scientific understanding, modelling and data collection had all progressed. The consensus of that work was that there is a need to stabilise atmospheric concentrations of green house gases before they begin to have a serious impact on the climate.

We therefore set ourselves a new internal performance target - to hold our net emissions, adjusted for portfolio changes, flat at the 2001 level.

We've set that target despite the fact that our oil and gas production is growing more rapidly than global demand.

We aim to meet that target through a combination of continued improvements in operational performance and through recognition of the reduction we are making in the emissions from the products we sell. That work continues and is producing good results.

Setting any target, of course, raises the question of the appropriate level at which to stabilise atmospheric concentrations of carbon. There is no definitive answer. Different modelling studies produce different answers.

Business always has to work in conditions of uncertainty - you can only plan on the basis of judgment and prudence.

In this case, based on our understanding of the range of the uncertainty around the scientific views, we've come to the judgment that to avoid serious impact upon societies or the environment it is necessary to stabilise atmospheric concentrations of greenhouse gases at around 500-550 parts per million. Today's level is around 370 ppm and has risen from pre-industrial levels of 280 ppm.

That range of 500-550 parts per million could shift as the scientific understanding improves, but it establishes a present day objective to which action can be directed.

Stabilisation in the range of 500-550 ppm could be achieved by balancing the growth in energy consumption driven by the world's growing population and rising living standards with moves to reduce the amount of carbon emitted.

Such a shift to a significantly lower carbon economy would require the removal by 2050 of a significant volume of carbon emissions.

Can that be achieved?

In principle the answer is yes.

There is no single solution - no magic bullet. But on the basis of practical steps, using technology which is either available now and which may be within reach, stabilisation on that timescale does seem to be an attainable goal.

Some very interesting work done at Princeton University has described what could be done in terms of a set of 'stabilisation wedges' summing up to 6 Giga Tonnes per annum of avoided emissions of carbon by 2050.

There are a series of technology options each of which could account for a 1GT wedge of that total. For example:

- 1400 1GW generating plants, using natural gas rather than coal.
- 700 1GW coal plants with carbon capture and storage.

- 2 billion gasoline or diesel cars running at 60 mpg instead of 30 mpg.
- A 70 fold increase in the current total wind energy capacity.
- 1000 fold increase in photovoltaic capacity.
- 700 1 GW nuclear plants, which represents a 4% per annum increase in nuclear capacity.

Of course, there are many uncertainties. The decisions, which require changes in lifestyle, may not always be acceptable. The technology of carbon sequestration or hydrogen distribution may be unattainable.

The development of a new generation of nuclear stations may raise unacceptable risks of proliferation and terrorism as well as raising again the question of nuclear waste disposal.

Developing countries don't have to pursue the same path of development, which the industrialized world has been through. They could be incentivised to leapfrog to a completely new generation of technology.

The items I listed are simply options. Society could choose to do more or less of each one. And human ingenuity could add more options to the list over the next 50 years.

What is clear is that there is no one single solution not least because the problem has no single source.

The challenge affects all sectors. The source of greenhouse gases isn't just transportation which accounts for just 20 per cent of the total. Industry contributes another 20 per cent; the domestic and commercial sector around 25 percent and power generation another 35 per cent. They all have to be tackled.

Many of the steps I've described require major investments.

If such steps are to be taken it is important to demonstrate the real value of taking a long term approach which transcends the gap in time between the costs of the investment and the delivery of the benefits. Political decisions are often taken on a very short term basis and the challenge is to demonstrate the benefits of the actions which need to be taken for the long term.

Taken as a whole, though, the point is that stabilisation in the range 500-550 ppm is possible, and with care could be achieved without disrupting economic growth.

The role of business is to transform the possibilities into reality. And that means being severely practical - undertaking very focused research and then experimenting with the different possibilities. The advantage of the fact that the energy business is now global is that international companies can both access knowledge around the world and can then apply it very quickly throughout their operations.

What does all this mean for us? What are the implications for a major oil and gas company - and what can we do to seize the business opportunities involved?

First, it demonstrates that oil and gas have sustainable futures.

Oil is a very effective transport fuel and recent technical innovations provide the opportunity to reduce the negative environmental impacts which might otherwise be involved. In Europe for instance, in the decade ending in 2005, oxides of nitrogen and sulphur, particulates and hydrocarbons emissions will all have been halved, with further significant reductions still to come.

Technical advance continues. Diesellisation, direct gasoline injection and hybridization all offer real potential for the improvement of the internal combustion engine.

So we continue to believe that oil has a very strong future as the principal source of energy for transportation.

In power generation, unless there are economic breakthroughs in clean coal technology, there will

be a need to bring about a shift in favour of Natural Gas.

Gas is already widely accepted as the preferred clean fuel to meet the increasing demands for power. Total gas consumption could grow three fold by 2050.

We continue to develop our gas business globally and we see great potential to use gas to reduce emissions. Just to quote one example. Bringing additional natural gas to Northern China from the Kovytko field in East Siberia could reduce the growth in emissions by at least 60 mt of CO₂ each year and possibly by as much as 120 mt a year if coal fired plants are taken out of service. Looking further ahead, the key to stabilisation will be the availability of competitive energy technologies.

To start with Hydrogen. Hydrogen is not a source of primary energy, but simply a clean energy carrier, which depends for its creation on some other form of primary energy. The Hydrogen Economy would need to be fueled by something else.

There are vast quantities of hydrogen in the world, but the very chemical reactivity that makes it so valuable as an energy carrier means that it has already naturally combined with other elements, such as oxygen in water, and carbon in natural gas.

To make hydrogen useful as an energy carrier we have to separate it from these basic elements, through electrolysis of water into hydrogen and oxygen, or through the reforming of natural gas.

Hydrogen could be made from renewable energy, but this looks likely to remain an expensive option for some time to come and our view is that reformation from Natural Gas represents the most viable short term source.

We already produce large quantities of hydrogen in our refining and petrochemical operations. The Grangemouth refinery, for instance, produces enough hydrogen to fuel 500,000 fuel cell vehicles and hydrogen is already an important tool in producing cleaner fuels.

Hydrogen is available and the key is to have hydrogen powered vehicles, which are competitive in cost terms with conventional internal combustion engines. Of course, many issues still need to be resolved.

Is it, for instance, more effective to produce the hydrogen locally, or would it be more cost effective to have central production, which would also create the potential to capture and store any CO₂?

That leads me to the next area, which is the possibility of capturing carbon from many sources, including power plants and storing it underground.

BP leads the joint industry Carbon Capture and Storage Project (CCP) that has attracted significant government support in both the US and Europe.

This involves work on the capture of carbon dioxide - pre and post combustion - and on its storage in ways which have demonstrable long term geological integrity.

The CCP project explores how we might radically reduce the costs of capturing and storing carbon in both new and existing facilities.

In addition to that project, we're working with Ford through the Carbon Mitigation Initiative at Princeton which links fundamental research into climate science and technology with the practical approach of 'learning by doing'.

And on that same practical basis, we're also preparing to develop one of the world's largest CO₂ storage projects at our Algerian In Salah gas field, in partnership with the state company Sonatrach. That facility will store 1.1 mt of CO₂ each year.

And then on the other side of the equation we've begun to look at demand and the opportunities created by structural or behaviour changes in the way energy is consumed.

Buildings, for instance, account for at least a third of the emissions from the use of energy in the

developed world.

We have a number of research projects underway on the efficiency of energy use including the possibility of creating zero emission buildings and the potential for greater use of passive renewables in building design - using the natural flow of energy to heat and cool buildings.

Potentially that could provide a seventh strand - another contribution to the overall objective of stabilisation.

Given the long term nature of the challenge and the range of possibilities which are at different stages of research, development and application, it is clear that the creation of a market in emissions' reductions can play an very important role in ensuring that available resources are applied where they have the greatest impact.

Our experience is that the most effective trading systems have to be clear, responsive to learning and capable of delivering signals through both penalties and incentives.

I don't think we're likely to see the sudden emergence of a single global trading system - that would be comparable to the emergence of a single global currency - but I do think there would be value in the development of the existing European emissions trading scheme as a "strong" currency - with its strength reflecting the rigour with which it is applied.

A strong currency of that sort would enable all the many different fragmented activities and efforts to reduce emissions, which are underway across the globe to be valued on a common basis.

Again, in that area we are working with the academic community to understand just what a really effective currency for emissions' reductions would look like.

To summarise then, there is a good case for cautious optimism.

Globally emissions continue to increase and on the base of the scientific evidence so far available there is a cause for concern and for precautionary action.

But the track record of experience - in BP and in many other companies - is that much can be done. If we can agree on the overall long term objective - the need to reduce emissions - we can begin to take the steps necessary - applying existing knowledge and technology and focusing research into areas where practical advances would make a real difference.

Our aspiration is to turn a threat and a risk into an opportunity. We believe the opportunity exists both to grow the long term future of our existing business - by supplying oil and gas and related products in a sustainable manner ... and to develop the business in ways which match the changing needs of our customers and our investors.

The world's need for energy continues to grow and we believe that oil and increasingly natural gas will remain the most significant sources of that energy for many decades to come.

Over time other sources such as solar power and hydrogen will be become more important, and we are devoting appropriate resources to long term research and development in those areas and to the issue of carbon capture. In the last three years alone we have invested over \$125 million in that research work.

Ladies and Gentlemen, I know this is a subject of enormous interest and it is difficult to cover all the issues satisfactorily in such a short time.

I'd be delighted to take questions now and our team in Investor Relations and the staff working on these issues within BP would be very happy to talk to you and to explain our approach in more detail.

Thank you very much.



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★
Bill Graves
President and Chief Executive Officer

December 10, 2003

The Honorable James L. Connaughton
Chairman
White House Council on Environmental Quality
722 Jackson Place, N.W.
Washington, DC 20503

Dear Mr. Connaughton:

I wanted to keep you informed of discussions that ATA is having with both the White House and EPA involving the SmartWay Transport program. I've enclosed copies of correspondence that I have sent for your information.

If you have any questions or need further information, please call Steve Brooks in my office at 703-838-1804.

Sincerely,

Bill Graves



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President and Chief Executive Officer

December 10, 2003

The Honorable Matt Schlapp
Deputy Assistant to the President
And Director of Political Affairs
The White House
1600 Pennsylvania Avenue, N.W.
Washington, D.C. 20500

Dear Matt:

I wanted to let you know about a program that ATA has been working on in conjunction with EPA that I felt would be of possible interest to you and the President. Over the past two years, ATA has been working with our members and EPA to assist in the development of a truly new and exciting voluntary program to reduce greenhouse gases and conserve valuable energy resources.

The program, known as SmartWay Transport includes charter partners from the nation's leading trucking companies such as Federal Express and United Parcel Service. By committing to reduce emissions, charter partners will be entitled to use a special trademarked seal on shipping containers, websites, literature, and letterhead, and will be recognized by both EPA and shippers as "environmentally friendly".

EPA is planning to have an official roll-out event of SmartWay at ATA's Winter Leadership Meeting from February 8-10 at the Washington Capital Hilton Hotel that will be covered by various news media outlets and credentialed press. As a strong advocate of the federal government and private industry working together to improve the environment beyond traditional regulatory means, this event will provide the President with an excellent opportunity to highlight his political and policy initiatives to help improve our environment. I have enclosed a copy of a letter I sent to Administrator Leavitt for your information as well.

I will follow up with you on possible ways that we can involve the President in the SmartWay rollout event. If you have any questions or need further information please call Steve Brooks in my office at 703-838-1804.

Sincerely,

Bill Graves



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Bill Graves
President and Chief Executive Officer

December 10, 2003

The Honorable Mike Leavitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

RE: Request for Participation in EPA's SmartWay Transport Program Roll-Out Event

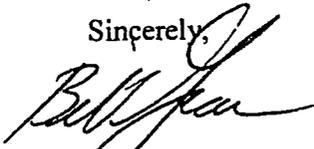
Dear Administrator Leavitt:

The American Trucking Associations, Inc. ("ATA") has been working closely with our members and the United States Environmental Protection Agency ("EPA") over the past two years to assist in the development of a truly new and exciting voluntary program to reduce greenhouse gases and conserve valuable energy resources. The program, known as SmartWay Transport ("SmartWay"), includes charter partners from the nation's leading trucking companies such as Federal Express and United Parcel Service. By committing to reduce emissions, charter partners will be entitled to use a special trademarked seal on shipping containers, websites, literature, and letterhead, and will be recognized by both EPA and shippers as "environmentally friendly".

EPA is planning to have an official roll-out event of SmartWay at ATA's Winter Leadership Meeting from February 8-10 at the Washington Capital Hilton Hotel. Since your Administration strongly supports the achievement of cleaner air and the protection of human health and the environment, we are formally inviting you to join our industries' leading CEO's to participate in the official unveiling of this program. The event, which will be covered by various news media outlets and credentialed press, will further show how the federal government and private industry are working together to improve the environment beyond traditional regulatory means.

I will be following up with you on your availability to participate in the SmartWay rollout event. If you have any questions or need further information please call Steve Brooks in my office at 703-838-1804.

Sincerely,



Bill Graves

CEQ
323 PC

CEQ
323 PC



EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY

Sumner

2/19 AM

1977 National Conference

9 AM night of the breakfast

300 - people planning

40 minutes - Awards Pre. of AEA
3 minutes

Leavitt - 6 minutes

press is invited

• 140 invited - 10 mins present
awards - charter publisher
awards + AEA & AEA

3 mins - 2 starter speeches
awards
trans.
Shipping & remarks

Graves - close 2 minutes
photos
briefing for press - Jeff &
technical staff



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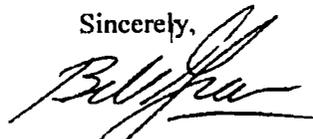
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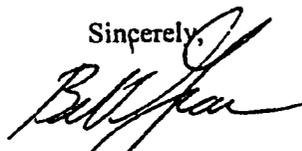
Dear Administrator Leavitt:

The American Trucking Associations, Inc. ("ATA") has been working closely with our members and the United States Environmental Protection Agency ("EPA") over the past two years to assist in the development of a truly new and exciting voluntary program to reduce greenhouse gases and conserve valuable energy resources. The program, known as SmartWay Transport ("SmartWay"), includes charter partners from the nation's leading trucking companies such as Federal Express and United Parcel Service. By committing to reduce emissions, charter partners will be entitled to use a special trademarked seal on shipping containers, websites, literature, and letterhead, and will be recognized by both EPA and shippers as "environmentally friendly".

EPA is planning to have an official roll-out event of SmartWay at ATA's Winter Leadership Meeting from February 8-10 at the Washington Capital Hilton Hotel. Since your Administration strongly supports the achievement of cleaner air and the protection of human health and the environment, we are formally inviting you to join our industries' leading CEO's to participate in the official unveiling of this program. The event, which will be covered by various news media outlets and credentialed press, will further show how the federal government and private industry are working together to improve the environment beyond traditional regulatory means.

I will be following up with you on your availability to participate in the SmartWay rollout event. If you have any questions or need further information please call Steve Brooks in my office at 703-838-1804.

Sincerely,



Bill Graves

703-838-1804 * Fax: 703-684-5751

CEQ 005586



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[EPA Welcomes our First 50 Partners](#)

[EPA unveils Partnership at ATA's Leadership Conference](#)

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[Become a Partner](#)

[Who are our Current Partners?](#)

The SmartWay Transport Partnership is a collaborative voluntary program between EPA and the freight industry. The Partnership creates strong market-based incentives that challenge companies shipping products, and the truck and rail companies delivering these products, to improve the environmental performance of their freight operations. SmartWay Transport partners improve their energy efficiency, save money, reduce greenhouse gas emissions and improve air quality.

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Partners



A stronger economy. A healthier environment. SmartWay Transport Partners DELIVER!

SmartWay Transport Partners represent commercial, industrial, and public sector organizations that commit to reduce greenhouse gas emissions and improve fuel efficiency of ground freight transportation. EPA provides Partners with benefits and services that include fleet management tools, technical support, information, public recognition, and, for exceptional environmental performers, use of the SmartWay Transport Partner logo. All current SmartWay Transport Partners are listed below.

Carriers

American Cartage
 AMI Leasing
 Arnold Transportation Services
 Averitt Express
 Bison Transport
 Braun's Express
 Bridgestone/Firestone North American Tire
 Camionnage C.P. Inc.
 Cardinal Logistics Management
 Coca-Cola Enterprises, Inc. (*Charter Partner*)
 Central Freight Lines
 Commercial Transportation
 DHL
 Estes Express Lines
 FedEx Express (*Charter Partner*)
 FedEx Freight
 FMI International
 G.I. Trucking Company
 H-E-B (*Charter Partner*)
 IdleAire Technologies
International Motor Freight
 Interstate Distributor Co.
 J.B. Hunt Transport
 Lakeville Motor Express
 McKelvey Trucking
 Metropolitan Trucking
 Michel Distribution
 Paschall Truck Lines

Shippers

Canon U.S.A., Inc. (*Charter Partner*)
 Clean Diesel Technologies
 Dell
 H-E-B (*Charter Partner*)
 The Home Depot (*Charter Partner*)
 IKEA North America Services, LLC (*Charter Partner*)
Interface Inc. (*Charter Partner*)
 Michelin North America
 Volvo Logistics North America

Roadway Express (*Charter Partner*)

Schneider National (*Charter Partner*)

Southeastern Freight Lines

Swift Transportation (*Charter Partner*)

Texas Department of Transportation

Texas Star Express

TP Freight Lines

Triple S Trucking

UPS (*Charter Partner*)

Vitran Logistics

Watkins & Shepard Trucking

Yellow Transportation (*Charter Partner*)

Xpress Global Systems

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In the News



EPA SmartWay Transport Partnership News

- **Grand Opening of the SmartWay Transport Partnership**
The official public release of the SmartWay Transport Partnership will take place in Washington, DC on February 9th, 2004 at the American Trucking Association's Annual Leadership Conference at the Capitol Hilton Hotel located at 1001 16th St NW, Washington, DC 20036
[View EPA Press Release](#)

- **First Official Release of EPA's FLEET Performance Model**
EPA's [Freight Logistics Environmental and Economic Tracking Performance Model v 1.0](#) is now available.

Other SmartWay Transport News

- **FleetOwner Magazine**
"Turn Idle Time Into Cash: A how-to handbook on trading engine idle time for profit." [PDF Version](#)

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Basic Information: Background

Ground freight transportation, the movement of goods using trucking fleets and rail, forms a solid foundation for maintaining our country's economic prosperity and competitive advantage. U.S. companies and organizations use nearly 7 million trucks and 20,000 Class 1 locomotives to transport over 11 billion tons of goods each year, worth over 8 trillion dollars. This system provides an invaluable service to businesses, consumers and the economy, however, these economic benefits are not without costs:

The value of the ground freight transport system to businesses, consumers and the economy is invaluable. However, these economic benefits are not without costs. Moving freight accounts for 20% of all energy consumed in transportation sector. Trucks carry about 70% of all freight shipped in the US, while rail carries about 15% (water and air transport account for the rest). Together, truck and rail transport now consume over 35 billion gallons of diesel fuel each year.

Burning this fuel produces emissions of carbon dioxide, the most prevalent greenhouse gas. Greenhouse gases create a gaseous "blanket" that prevents ultraviolet rays from leaving the earth's atmosphere, resulting in a "greenhouse," or warming, effect, which is a major part of global climate change. Consuming 35 billion gallons of diesel fuel produces over 350 million metric tons of carbon dioxide each year.

Burning this fuel also produces air pollutants that create ozone, or "smog", and particulate matter, two air pollutants that have serious health and environmental impacts. Ground freight contributes 30% of transportation related emissions of oxides of nitrogen (NOx)—a precursor to ozone formation, and 26% of particulate matter emissions.

While burning fuel is necessary to move goods efficiently by truck and rail, some of that fuel is wasted due to inefficient practices such as excessive idling and using trucks with poor aerodynamic design. That wasted fuel translates to wasted money for freight transport companies and increased emissions released into the environment.

Today, goods delivered by trucks and rail account for:

- 11 billion tons of material
- 35 billion gallons of diesel fuel
- 350 million metric tons of CO₂
- 20% of all energy consumed within the transportation sector

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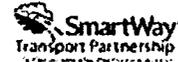


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Joining the Partnership

Stepping out ahead of the curve is courageous, and smart.

It takes courage and wisdom to set high goals and standards for your company. It takes determination to meet or exceed those goals. Smartway Transport Partners are leaders, setting the pace for their industry. As a SmartWay Transport Partner, your efforts pay off in so many ways. SmartWay Transport Partners improve fuel efficiency--and that improves the bottom line. SmartWay Transport Partners reduce their environmental footprint-- and that earns the respect of customers. SmartWay Transport Partners reduce energy consumption--and that improves national security. SmartWay Transport Partners demonstrate leadership and corporate citizenship--and that earns distinction and recognition.

A stronger economy. A healthier environment. As a SmartWay Transport Partner, you can DELIVER!

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Idling Reduction: Background

Why do trucks and locomotives idle?

Truck and locomotive drivers idle their engines for a variety of reasons. For trucks, especially long-haul trucks, the truck driver is mandated by law to rest after driving a certain amount of hours (for every 14 hours of driving, the driver must rest for at least 10 hours). Surveys have found that 70%-80% of truck drivers cite the need for heating or air conditioning as the main reason for idling. Beyond the need for a comfortable temperature, truck drivers have also cited the need to operate on-board electrical appliances, such as a television or refrigerator. Another reason to idle the engine, especially in cold weather, is to ensure the engine block, fuel and oil remain warm. Similar to this is the fear that once you turn a diesel engine off it may be difficult to restart. With newer engines, this should not be a concern but it is habit forming to simply leave a diesel engine running.

Today, goods delivered by trucks and rail account for:

- 11 billion tons of material
- 35 billion gallons of diesel fuel
- 350 million metric tons of CO₂
- 20% of all energy consumed within the transportation sector

In the area of freight locomotives, it is important to point out that most locomotive engines do not have anti-freeze, so temperatures below 40o F can cause engine damage. Therefore, the main reason for locomotive idling is weather related. These locomotive engines will idle to maintain engine coolant, fuel, oil, and water warmth, as well as maintaining battery charge. In addition, they may idle to maintain comfortable temperatures inside the operator cabs. Other reasons to keep a locomotive idling include having a readily available engine (avoiding unnecessary starting and shutting-down), and (like trucks) the habit or custom of always keeping a diesel engine operating.

How does company size influence idling times?

Owner operators have the lowest idling times primarily due to the fact that they, as owner of their own business, better understand and appreciate the costs associated with idling. Large company drivers also have a lower than average idling rate, and this can be attributed to the financial incentives to reduce idling available at these large companies. Both the small and medium company drivers had the highest amount of idling. These are the companies that may not offer any type of incentive program or strategy to reduce idling.

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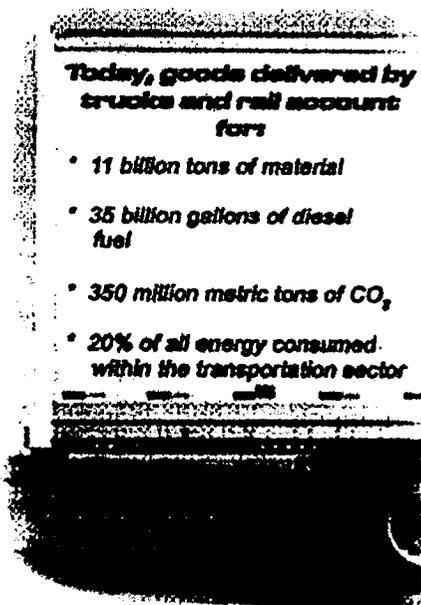
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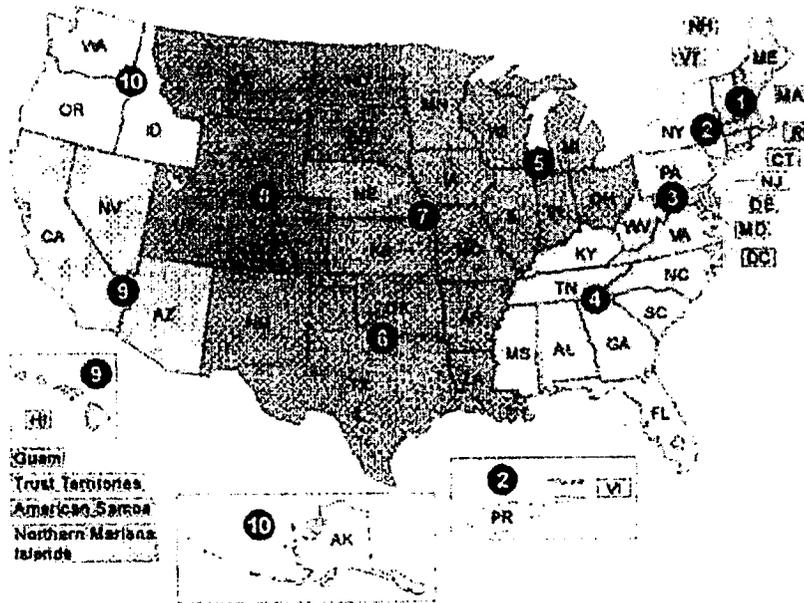
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Where You Live



Click on your region of the country to find information about SmartWay Transport Partnership activities in your area.



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Glossary



Terms Relating to the SmartWay Transport Partnership

ATA – American Trucking Associations

API – American Petroleum Institute

APU – APUs automatically shut down the main locomotive engine idle while maintaining all vital main engine systems at greatly reduced fuel consumption.

Automatic Tire Inflation System – Automatic tire inflation systems monitor and continually adjust the level of pressurized air to tires, maintaining proper tire pressure even when the truck is moving.

Aerodynamic Drag – Wind resistance

Backhaul – A vehicle's return trip

Bin Center – A drop off facility that is smaller than a public warehouse

Boxcar – An enclosed railcar used to transport freight

Bulk Cargo – Unpacked dry cargo such as grain, iron ore or coal. Any commodity shipped in this way is said to be in bulk

Cab Extenders – Also called gap seals, which help to close the gap between the tractor and the trailer

Carriers – Companies that haul freight, also called “for-hire” carriers. Methods of transportation include trucking, railroads, airlines, and sea borne shipping

Chassis – A specialized framework that carries a rail or marine container

CLM – Council of Logistics Management

CO – Carbon monoxide

CO2 – Carbon dioxide

Container – An enclosed box that carries goods.

Container on Flat Car (COFC) – A container that is transported on a rail flatcar. It can be shipped via tractor/trailer using a chassis as the wheel section.

Contract of Affreightment – A contract between a cargo shipper and carrier for

the transport of multiple cargoes over a period of time. Contracts are individually negotiated and usually include cargo description, quantities per shipment and in total, load and discharge ports, freight rates and duration of the contract.

Crossdock – Crossdock operations in a warehouse involve moving goods between different trucks to consolidate loads without intermediate storage.

Deadweight Tons (DWT) – The cargo carrying capacity of a vessel, including fuel oil, stores and provisions

Distribution Center (DC) – Distribution centers store and sort goods using warehouse space so that full truckloads of merchandise can be sent to a single destination or to multiple destinations along a specific route.

Doubles – Double trucks are two 28-foot trailers that are pulled by one tractor. Doubles also are known as "double bottoms."

Drayage Firms – Motor carriers that provide local pickup and delivery of trailers and containers (on chassis)

Electronic Data Interchange (EDI) – A method of transmitting freight bills, payment information and invoicing between computers.

Flatbed – A flatbed, also called a haul brite, is a type of trailer on a truck that consists of a floor and no enclosure.

Fronthaul – The first leg of the truck trip that involves hauling a load or several loads to targeted destinations.

Intermodal Transport – A movement of goods using more than one means of transportation. The most common intermodal arrangement is for goods to be moved by truck at their origin, transferred to rail for the long haul between regions, and transferred again to truck near their destination.

Less-Than-Truckload (LTL) Carriers – A LTL operation collects small shipments from local pick-ups, moves them over the road between terminals in truckloads, and breaks them up at the destination terminal, from where it makes local deliveries.

Lumping – When a driver assists with loading and unloading the trailer contents.

NOX – Oxides of Nitrogen

OEM – Original Equipment Manufacturer

Owner/Operator – A truck driver who owns and operates his/her tractor/trailer.

Pallets – A reusable platform on which freight is loaded. Pallets are used to load/unload goods using a forklift.

PM – Particulate matter

Private Trucking Fleets – Private fleets serve the needs of their owners, and do not ordinarily offer commercial trucking services to other customers. Private fleets typically perform distribution or service functions.

Public Warehouse – A facility where companies rent space to store their goods

Refrigerated Carriers – Truckload carriers designed to keep perishables good refrigerated. The food industry typically uses this type of carrier.

Roof Fairings – An integrated air deflector mounted on the top of the cab

Route Trucks Delivery – Trucks that travel fixed routes

SAE – Society of Automotive Engineers

Shippers – retailers and manufacturers of goods that require shipping

Shipper-Carriers – Shipper-carriers (also called private carriers) are companies with goods to be shipped that own or manage their own vehicle fleets. Many large retailers, particularly groceries and "big box" stores, are shipper-carriers.

Straight Truck – Straight trucks do not have a separate tractor and trailer. The driving compartment, engine and trailer are one unit.

Subhauler – A subhauler drives a tractor under contract for a company. Usually a subhauler is an owner/operator or a small company.

Third-Party Logistics – Third-party providers specialize in warehousing and distribution. They provide cross-dock services that consolidate truckloads of goods and order picking that creates loads.

Tractor – The tractor is the driver compartment and engine of the truck. It has two or three axles.

Trailer – The part of the truck that carries the goods.

Trailer Drops – When a driver drops off a full truck at a warehouse and picks up an empty one.

Trailer on Flat Car (TOFC) – A TOFC (also called a piggyback) is a truck trailer that is transported on a rail flat car.

Truckload (TL) Carriers – A truckload firm moves a shipment, a full truckload, directly from origin to destination.

Truck Stop Electrification (TSE) – Provides power outlets at truck parking spaces in which truck drivers can simply plug in, and turn off their engines, rather than idle their truck engine.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

CEQ 327PC

December 19, 2003

Philip Kooney
Council of Environmental Quality
722 Jackson Place, N.W.
Washington, DC 20503

OFFICE OF
AIR AND RADIATION

Dear Mr. Kooney

I am pleased to share with you the Climate Protection Partnerships Division's 2002 Annual Report, Change for the Better, ENERGY STAR® and Other Voluntary Programs. As this report demonstrates, EPA's voluntary climate programs continue to achieve sizable reductions in greenhouse gas emissions while promoting economic growth.

In 2002 alone, these voluntary partnership programs, which include ENERGY STAR, Clean Energy, Methane, and Environmental Stewardship programs, prevented more than 43 million metric tons of greenhouse gas emissions (in MMTCE) - equivalent to the emissions from more than 28 million automobiles. They also saved a significant amount of energy - more than 100 billion kilowatt hours and 15,000 megawatts of peak power, the amount of energy required to power more than 15 million of this nation's homes.

The ENERGY STAR program has had tremendous results and continues to grow. For example, through 2002, over 1 billion ENERGY STAR labeled products have been purchased, 100,000 ENERGY STAR labeled new homes have been constructed, and thousands of buildings have been improved. In addition, EPA's methane programs are expected to keep U.S. methane emissions below 1990 levels through 2020, and EPA's voluntary programs for the most potent greenhouse gases are helping industry reduce these emissions substantially.

The key to the success of these programs is the continuing shared commitment of the private and public sectors in forging a new way of doing business that protects the environment while enhancing the bottom line. Thank you for your contribution to these successes. We look forward to working with you in the future.

Sincerely,

Kathleen Hogan, Director
Climate Protection Partnerships Division

We continue to spread the word

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CEQ 005603

December 16, 2003

Kam
Bryan
Phil
Ken

Please review and provide comments to Phil by COB Friday.

Global Climate Change (1 of 4)
CEQ: GEA 2001-2004

300

CEQ 005605

COUNCIL ON FOREIGN RELATIONS

58 EAST 68TH STREET • NEW YORK • NEW YORK 10021
Tel 212 434 9683 Fax 212 434 9875 www.cfr.org

FAX TRANSMISSION COVER SHEET

Date: December 15, 2003
To: Mr. James L. Connaughton
Fax: (202) 456-2710
Re: Council Policy Initiative on Global Climate Change
Outline for Advisory Committee
Sender: Margaret Winterkorn-Meikle, Research Associate
Tel: (212) 434-9683; *Email:* winterkorn@cfr.org

**YOU SHOULD RECEIVE 11 PAGE(S), INCLUDING THIS COVER SHEET. IF YOU DO NOT
RECEIVE ALL THE PAGES, PLEASE CALL 212-434-9875**

Dear Mr. Connaughton:

As promised, attached is an outline for the CFR Council Policy Initiative on global climate change that David Victor has drafted for review by you and the other members of the CPI advisory committee.

In order to move forward with this project, David Victor will contact you in the next few days to schedule a time to discuss the outline in more detail. Is there a convenient time this week when he can call you? Alternatively, David will be in Washington, DC on Monday, December 22nd, and could stop by your office any time before 3pm to discuss the project in person, if that would be more convenient for you. Please let me know if you have a preference for a time this week when David can contact you.

Please do not hesitate to call or email me if you have any questions. Thank you again for participating in this important project.

Sincerely,



Margaret Winterkorn-Meikle

To: Advisory Committee, CFR CPI on global warming
From: David G. Victor
Re: CFR CPI on Climate Policy
Date: 12 December 2003

I attach draft outline for the Council Policy Initiative (CPI) on global warming. The outline adopts the "three speeches" approach that has been used successfully in earlier CPI's, such as the summer '03 CPI on defense policy. The outline envisions an introductory memo that lays out the major dimensions for policy choices and summarizes the three main options. Three subsequent chapters contain the three speeches. As in earlier CPIs, the introductory memo would provide most of the value-added since it would unpack the many choices within each option, exposing the reader to the multi-dimensional nature of this policy problem. Given the importance of that introductory memo, my annotated outline offers much more detail in that area. For the speeches, I have simply indicated the main line of argument and points of emphasis. For now, please focus especially on the outline for the cover memo.

Unlike Council Task Forces, CPI's are strictly neutral. I need your help to ensure that the CPI is faithful to that purpose. Moreover, as Richard Haass indicated in his invitation letter, we do not seek consensus—indeed, quite the opposite. Our purpose is not advocacy; rather, it must aim to reflect the full range of responsible opinion—and let the reader decide the best options and points of debate.

I seek your advice on whether this outline reflects the full range of responsible opinion. I will follow up by email or phone in the next few days to set a time when we could discuss this draft. My aim is revise the outline and then complete a full draft of the piece during the winter holidays—ready for your review at a meeting we will hold in Washington some time in February. The final product is expected in late March or early April, timed for relevance in Campaign 2004.

For your information, I also attach the advisory committee roster. We are still working to finalize two other members. Please let me know if there are major branches of responsible opinion and policy expertise that you think will not be covered adequately with the committee that we have assembled. The group that we have assembled is distinguished, senior and diverse; Richard Haass, Jim Lindsay and I look forward to working with you in the coming months.

Climate Change: America's Policy Options
Council Policy Initiative, draft outline (12 December 2003).

- I. Introduction: Major Options and Analysis of Choices
 - 1) NB: This introduction in the form of a joint memo from the head of the National Security Council and the National Economic Council (and CEA?) to the President.
 - 2) Importance of the issue as potential threat to U.S. prosperity and security. Brief overview of the key scientific and policy issues—the theory of climate change and actions that many think will be needed to address these potential threats. Rise of climate change as an important political issue; exit of US from Kyoto and current difficulties with Kyoto. The need for a fresh look at U.S. policy options and US coordination with other nations.
 - 3) Choices required in many areas (science policy, land use, emission controls, technology, etc.). Many of those choices are principally matters of U.S. policy, but many also imply the need for coordination with other countries.
 - 4) Based on extensive deliberation within your administration, we attach three options—each presented in the form of a major speech:
 - a) Modest Precaution. A continuation, with small changes, of the policy that is already in place—investment in science so that we understand the risks better in the future, investment in technology so that we are better prepared with more effective technologies if we need them, some bilateral engagement with key developing countries on modest policy changes. Let the states do what they like, but little federal action beyond the systems we already have in place to register voluntary emission reductions.
 - b) Kyoto Plus. A re-engagement with the Kyoto process, built on the recognition that the Kyoto targets are no longer achievable for the US (and many other nations) but that urgent international action is required and the Kyoto framework is the only viable framework for that action. This option would build on all the actions in the “modest precaution” approach but go much further. A centerpiece would be a stringent cap on US emissions of greenhouse gases, as well as aggressive efforts to get developing countries to adopt caps.
 - c) Making a Market. Finally, a third option would view the task of creating an effective strategy for controlling emissions of greenhouse gases in light of other great institution-building efforts of the last century, such as the construction of the world trading system through the GATT and WTO. This speech would accept the science and underscore the need for measured, long-term action but would indicate the difficulties in building effective international institutions. It would emphasize the key role for national emission trading programs and the likelihood that an effective international solution will emerge only from the “bottom up” through links between these national programs. This option would commit the US to a significant cap on its emissions and would also outline a distinct way for engaging developing countries through key infrastructures that “lock in” low-emission fixtures—such as investment in gas infrastructures or in nuclear power for countries that otherwise would burn carbon-intensive coal.
 - 5) Although we present these as three options, you may wish to pursue a policy that combines elements from each. Thus this cover memo does not evaluate each option

individually in detail but, rather, examines each of the five dimensions of choices that you will need to make. We can craft an integrated policy; some choices will constrain your actions in other dimensions, and we would be happy to discuss those interactions with you through the deliberations on this important policy issue. The five dimensions:

- a) Science. Discuss the state of the science on detection of climate change and attribution of that change to humans; discuss projections for the future; discuss the state of research on the impacts of climate change, with particular emphasis on three issues: i) the difficulty of making robust assessments of potential impacts of climate change; ii) the importance of assumptions about how humans and ecosystems will adapt to climate change; iii) the likelihood that the median projections for climate impacts, at least for the next few decades, will include winners and losers—with Russia, for example, as a potentially large winner; and iv) the potential for “abrupt” or “catastrophic” changes in climate that could exceed the ability of even highly adaptive societies (e.g., the U.S.) to adjust. In each, indicate the uncertainties and how they propagate through the full “integrated” analysis of the degree and impacts of climate change. The science is the essential backdrop to any policy, but you face policy choices regarding science as well. Work in this area is expensive, and it is possible that greater support of scientific research will lead to more precise answers in the future. Outline the major options and their cost; discuss areas where scientific research requires international collaboration, and indicate the (generally positive) state of such collaborations.
- b) Emission controls. The root cause of climate change is the emission of greenhouse gases—principally carbon dioxide (CO₂) from burning fossil fuels but also black carbon (a byproduct of burning dirty fuels such as coal and some petroleum products), methane (from rice paddies, livestock and leaking gas pipelines), and sundry other gases. To the extent that you think climate change is a serious issue you must also consider your strategy for controlling emissions. Summarize the main points about factors that determine cost—quick actions more expensive than those that occur with the turnover of the capital stock; market-based strategies more efficient than command-and-control; global strategies more efficient than those that specify actions for each jurisdiction. Indicate that there are powerful political arguments against each of these propositions. For many, mandates that specific firms reduce emissions to specific levels are the only way to demonstrate credible action; global strategies, although less costly, would send capital and jobs overseas; giving credit for efforts in other countries runs the risk of proliferating a series of bogus credits that merely reward countries for doing things that they would have done anyway—actions that do not push down the projected emissions of greenhouse gases in any fundamental sense. There are many complicated aspects to emission control policies; you face choices mainly in three areas:
 - i) Local policies. Many states, on their own, are already starting actions to control emissions. Some are also implementing “registries” that allow firms to note reductions they have made with the hope that those reductions might be recognized in the future—such as through the award of emission credits for

- early action. Discuss pros and cons of these local and state policies. Indicate that much of this action has been spurred by the lack of any credible emission policy at the federal level—as with clean air and water legislation in the US, local action is an effort to spur and supplement efforts at the federal level.
- ii) Federal policies. Recap history of US federal policy, with attention to voluntary agreements, public-private partnerships, and the federal climate registry (1605b). Underscore that the question at present is whether to increase these voluntary efforts or to impose some mandatory system. In principle, many options for a mandatory system; in practice, most attention focused on a trading system—notably, McCain-Lieberman bill. Discuss the issue of cost control and the danger that a cap on emission quantities will force the economy to meet obligations that prove to be much more costly than originally anticipated.
- iii) International policies. Discuss the Kyoto vision of an international emission trading system; evaluate whether that system could emerge from such an intergovernmental process or, rather, from the ground up. Indicate the major policies being considered in key trading partners (Japan, EU, Canada), focusing on the European emission trading system and the possibility, in the future, that a U.S. system could link with the European scheme so that firms would be able to shop a large market (more than half of the world's economy) for the lowest cost emission reductions. Discuss possible expansion to include Russia and developing countries. Discuss the problems in setting emission targets through a UN treaty process such as Kyoto.
- c) Adaptation. Quite apart from efforts to control the root cause of climate change—the emission of greenhouse gases—a certain amount of climate change will occur anyway. Present data on sea level rise (highly likely), storms (highly uncertain), drought and floods (highly uncertain), heat stress (variable). Many existing policies have a large effect on the ability of our society to adapt—such as coastal zone management policies (e.g., zoning and insurance rules), water management, farm policies that affect crop choice and prices, etc. If you want to prepare for substantial climate changes in the coming decades then an integrated policy would include signals about which of these policies will need to change. In some areas, such as choice of crops, the lead times for response are very short and we needn't worry at present; in other areas, such as siting of coastal structures and the building of sewerages near sea level, actions today are already locking out certain options for the future. Finally, discuss issues surrounding ecosystem responses. Ecosystems, unlike humans, can't observe and anticipate changes in climate—they respond, in many cases, with extinction. Insofar as you believe that our policy should reflect danger of substantial climate changes then we should revisit, for example, strategies for protecting natural ecosystems—a series of fragmented and small protected areas, as is common in much of the U.S. (especially where protected ecosystems are near urban areas and private owners are marbled among public lands), may be less effective than large contiguous tracts of protected areas in which plants and animals are able to “roam” as the climate changes.
- d) Technology. Discuss the need for long-term technological change so that the services of modern economies (electricity, food production, mobility,

entertainment, etc.) can be supplied without causing harm to the environment. Introduce concept of decarbonization and indicate the rate of decarbonization that is “normal” in modern economies—show the much higher rate that must be sustained over the next five decades if we were to reduce emissions to such a degree as needed to stabilize the concentration of greenhouse gases in the atmosphere. Also indicate the types of technologies that might be needed to “geoengineer” the climate—if a catastrophic change in climate were to arrive, could we intervene to forestall or reverse the harmful effects and buy time while emissions are reduced? Discuss the types of technologies that private firms would support on their own, and indicate the interplay between credible emission controls and private investment in R&D. Indicate the types of technologies that have “public good” characteristics and are unlikely to attract adequate private investment; discuss major possible roles for government policy in these situations, the costs, and how possible policies in this issue compare with other technology policies.

- e) Developing Countries. Special attention needed to developing countries because their emissions are rising rapidly; indicate statistics, underscore that per-capita emissions remain much lower than in the industrialized world for the foreseeable future. Difficult to engage these nations. They stand to lose from climate change (in potential lives lost or disrupted, developing countries are probably much more vulnerable than those from the industrialized world because so many people in developing countries depend on fickle climate to make a living—for example, as farmers. (In contrast, most of the economy in industrialized nations depends on manufacturing and services that are, in large measure, pretty immune to changing climate.) But the losses from climate change are uncertain and far in the future; in contrast, the cost of policies to control emissions are incurred today—with that calculus, few developing nations find an interest in investing in emission controls. Under Kyoto, these nations do not cap their emissions. However, they can “opt in” to the Kyoto mechanisms on a project-by-project basis—give examples—through the Clean Development Mechanism (CDM). You will face choices about how best to engage with these nations; the options include:
- i) Do nothing. The developing countries have already shown that they are wary of accepting any obligations, even obligations that could be to their direct benefit. At present their per-capita emissions are much lower than those of the US and other advanced industrialized countries; they will come on board if and when their populations become concerned about global warming. Until then, there is little—beyond some rhetoric about the importance of engaging developing countries—that we can do.
 - ii) Demand that developing nations accept caps on emissions. Unlikely to succeed—they are well-organized and oppose such a policy. You could attempt to force them by linking with other issues, such as in the WTO, but that also is likely to fail. You could pay them the full cost of meeting those caps—as the US and other industrialized have done reliably in the world effort to control depletion of the ozone layer—but that approach would be very costly and prone to abuse as countries over-state the true costs. A campaign to raise awareness of climate dangers in developing countries could help to

sway public opinion and make these nations more willing to control emissions, but such campaigns are difficult to organize and unlikely to have any substantial near-term effects.

- iii) Reinvigorate the Kyoto system. The linchpin of this system is CDM. Discuss why, so far, no CDM projects have been approved; indicate potential difficulties with a larger CDM, especially as the system for approving CDM projects is already becoming cumbersome and politicized. Discuss options for streamlining the Kyoto system and indicate the conditions under which this would actually work—that is, it works only if the credits generated within CDM actually have value within the nations where the investors reside. If the value of the credits declines—as in today’s market—then CDM will dry up.
 - iv) Mainstream climate into development policy. A third approach to developing countries is to spawn a series of intergovernmental and private-public dialogues about the interactions between climate policy and development. In many countries key decisions are being made right now that have long-term implications for emissions and vulnerability to climate change. For example, China and India are both in the midst of encouraging large investments in gas infrastructures—where gas replaces coal in generating electricity, for example, emissions of greenhouse gases are cut in half. “Mainstreaming” would involve finding areas where climate-friendly policies are also consistent with development policies; it might put particular emphasis on infrastructures and other choices that “lock in” low-emission futures. There is already much evidence that through the normal process of diffusion of modern technologies that, for their level of economic development, the developing countries emit at a much less intense rate than did the industrialized countries. The “mainstreaming” strategy would recognize that achievement and aim to reduce the emission intensities even further. Discuss “emission intensity” as a measure of achievement and indicate the link between that and the measure proposed by the Bush administration—show figure on emission intensities of all the major economies.
- 6) Assessment of the Major options. This section, the conclusion to the cover memo, would review the three main options in light of the many dimensions and issues raised in this memo, pointing to key areas for policy choices.

II. Presidential Speech: “Modest Precaution”

[This speech would recognize global warming as a potential problem but emphasize the long time scales and uncertainties about impacts. The long time horizons allow time for deliberation and a measured response. The uncertainties about impacts underscore the need to prepare for adaptation—and to help others with the same task—rather than merely view this as a problem for costly abatement. Underscore that this is just one of a long series of uncertain and cumulative environmental issues—a category that includes air pollution, acid rain, lead, mercury, heavy metals. In all those issues in the past we have taken actions on the requisite time scales at costs that have proved acceptable—but crash programs with command and control strictures have been costly and must be

avoided. Use examples—particulate pollution in London, acid rain in the US, sundry water pollution problems.

[The policy advocated here would entail a modest increase in funding (from already very high levels) on the science of climate change—so that future policy actions are better informed about the real risks. It also envisions additional funding for development and testing of new technologies, including “breakthrough technologies” that could supply modern energy services (e.g., electricity or mobility) without causing any emission of greenhouse gases. This speech would emphasize modest efforts to work with key developing countries to adopt some new technologies and alter development paths. It would underscore that these nations already account for approximately half of world net emissions of greenhouse gases and show little sign of abating. Thus, even as we prepare modest efforts to control our own emissions, we should also adopt policies that encourage anticipation and adaptation to likely climate changes, such as higher sea level. The speech would indicate some concrete examples of such actions that have been undertaken already, such as higher seawater intake pipes for new power stations in coastal zones. As with efforts to control emissions, adaptation that is started now and conducted at the normal time scale of business will be sufficient.]

III. Presidential Speech: “Kyoto Plus”

[This speech would start with the same scientific information but emphasize the dangers that are lurking in the uncertainties. This option accepts the science as sufficiently robust to merit substantial action. This speech would emphasize the excessive cost of unilateral action, and the enormous benefits of a concerted global approach. The actions to be addressed would include strict limits on emissions of greenhouse gases, as a credible first step toward an eventual cut of 60% (or greater) over the next five decades. The speech would underscore the urgency in achieving a prompt departure from “business as usual” patterns of burning fossil fuels and land use patterns. This policy would include additional attention to strategies for adapting to climate change, which in turn would require addressing issues such as land use policy in coastal zones that will be prone to damage from flooding and storms, as well as policies on water use in arid and semi-arid areas, including the methods for allocating scarce water resources in the southwestern United States. Substantial investments in technology will be needed, as well as a large-scale plan for engaging developing countries—leading, eventually, to those countries implementing binding limits on their emissions of greenhouse gases. Throughout, this speech would emphasize the need to link the climate problem to other issues, such as energy security, which also demand the need for a much more efficient economy; the speech would underscore that other nations, such as China, are facing similar policy challenges and we can use those commonalities as the seeds for a collective and aggressive policy. Building the context for low carbon futures have strategic value—for the economy and our security—and must attract investment at a scale comparable with other great national projects. Success will speed the transition from oil and the “resource

course” that has befallen so many oil exporters—and come back to hurt us, as in Saudi support for Sept 11. It will blunt the geopolitical leverage of oil rich nations; it will advantage gas in the short term, which could empower new geopolitical players, but in the long term it will decouple our prosperity from the vagaries of natural resources.

[This second speech emphasizes that such an aggressive course of action will require coordination and integration with the policies of other key nations. It is inconceivable that U.S. business would accept the higher costs of these actions unless their competitors—including, eventually, competitors in the developing world—were engaged in a comparable effort. This second option thus envisions re-engaging with the negotiating process that had been spawned by the 1997 Kyoto Protocol—a process that this administration, in large measure, exited when it refused to submit the Kyoto treaty for ratification. The original emission control goals in Kyoto are no longer achievable, and the Kyoto system has other flaws that our allies already recognize—we could use our re-engagement as an opportunity to fix these issues while keeping the basic framework and spirit of the Kyoto treat intact.

IV. Presidential Speech: “Making a Market”

[This speech would emphasize the need for action to address the long-term dangers of climate change but would look at the issue in the context of creating a global institution. It would draw on examples from other efforts to build global institutions, such as the GATT system and the robust international currency trading system. It would emphasize the long time scales involved, the need to avoid premature actions that introduce rigidity and excessive cost. It would start with the observation that each major jurisdiction in the industrialized world (EU, Japan, US) is adopting its own approach to the problem of climate change; over time, a more coordinated international strategy may evolve, but for now these parallel tracks offer opportunities for experimentation over a decade or longer. It would applaud the efforts of different US states in this regard but caution—as in the early days of other federal environmental programs—the need to avoid excessive fragmentation and thus the need for a more measured federal policy response. The speech would give particular attention to the role of emission trading as a favored policy strategy—modeled on the U.S. experience with trading sulfur dioxide emission rights established under the 1990 Clean Air Act Amendments. It would emphasize that creating an international trading system is akin to inventing a new form of money, and it is better to do that from the “bottom up” so that we can control the standards that will govern the value and circulation of these credits, rather than work solely “top down” through an international treaty that has no serious enforcement powers.

[To blunt criticism that this approach will be too slow and is inadequate to the severity of the climate change threat, this speech would underscore the need for a stronger US response in the form of a federal cap on emissions with a “safety valve” to ensure that the costs are not excessive. Mindful of the need for a policy that operates on the timescale of the turnover of the capital stock in the economy, this federal cap must be more modest than envisioned in Kyoto, and our policy

would explicitly open trading windows to other countries that adopt comparable policies. Through a series of bilateral trading relationships the U.S. would play a leading role in creating an integrated international system—much as the highly successful WTO/GATT rules on international trade evolved from a series of bilateral concession agreements. This third approach would engage developing countries through broad programs that create the context for lower future emissions—such as supporting a transition to natural gas in China, or sustainable transportation networks in India. This programmatic approach would not rely on emission trading or the “clean development mechanism (CDM)” of the Kyoto Protocol, as it would prove impossible to ascertain exactly how many credits (and with what security) would be due to the investors and host countries—indeed, including these countries in the market for emission credits might actually undermine the “strong currency” that we aim to create.

CFR GLOBAL CLIMATE CHANGE CPI ADVISORY COMMITTEE

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Chairman, Council on Environmental Quality

Mr. Jacques DuBois
Chairman and CEO, Swiss Re America Corporation

Prof. Jeffrey A. Frankel
James Harpel Chair for Capital Formation & Growth
John F. Kennedy School of Government, Harvard University

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Program Director, Air and Energy
Natural Resources Defense Council

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December 16, 2003

Kam
Bryan
Phil
Ken

Please review and provide comments to Phil by COB Friday.

Back to
Phil

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FAX TRANSMISSION COVER SHEET

Date: December 15, 2003
To: Mr. James L. Connaughton
Fax: (202) 456-2710
Re: Council Policy Initiative on Global Climate Change
Outline for Advisory Committee
Sender: Margaret Winterkorn-Meikle, Research Associate
Tel: (212) 434-9683; *Email:* winterkorn@cfr.org

*YOU SHOULD RECEIVE 11 PAGE(S), INCLUDING THIS COVER SHEET. IF YOU DO NOT
RECEIVE ALL THE PAGES, PLEASE CALL 212-434-9875*

Dear Mr. Connaughton:

As promised, attached is an outline for the CFR Council Policy Initiative on global climate change that David Victor has drafted for review by you and the other members of the CPI advisory committee.

In order to move forward with this project, David Victor will contact you in the next few days to schedule a time to discuss the outline in more detail. Is there a convenient time this week when he can call you? Alternatively, David will be in Washington, DC on Monday, December 22nd, and could stop by your office any time before 3pm to discuss the project in person, if that would be more convenient for you. Please let me know if you have a preference for a time this week when David can contact you.

Please do not hesitate to call or email me if you have any questions. Thank you again for participating in this important project.

Sincerely,



Margaret Winterkorn-Meikle

To: Advisory Committee, CFR CPI on global warming
From: David G. Victor
Re: CFR CPI on Climate Policy
Date: 12 December 2003

I attach draft outline for the Council Policy Initiative (CPI) on global warming. The outline adopts the "three speeches" approach that has been used successfully in earlier CPI's, such as the summer '03 CPI on defense policy. The outline envisions an introductory memo that lays out the major dimensions for policy choices and summarizes the three main options. Three subsequent chapters contain the three speeches. As in earlier CPIs, the introductory memo would provide most of the value-added since it would unpack the many choices within each option, exposing the reader to the multi-dimensional nature of this policy problem. Given the importance of that introductory memo, my annotated outline offers much more detail in that area. For the speeches, I have simply indicated the main line of argument and points of emphasis. For now, please focus especially on the outline for the cover memo.

Unlike Council Task Forces, CPI's are strictly neutral. I need your help to ensure that the CPI is faithful to that purpose. Moreover, as Richard Haass indicated in his invitation letter, we do not seek consensus—indeed, quite the opposite. Our purpose is not advocacy; rather, it must aim to reflect the full range of responsible opinion—and let the reader decide the best options and points of debate.

I seek your advice on whether this outline reflects the full range of responsible opinion. I will follow up by email or phone in the next few days to set a time when we could discuss this draft. My aim is revise the outline and then complete a full draft of the piece during the winter holidays—ready for your review at a meeting we will hold in Washington some time in February. The final product is expected in late March or early April, timed for relevance in Campaign 2004.

For your information, I also attach the advisory committee roster. We are still working to finalize two other members. Please let me know if there are major branches of responsible opinion and policy expertise that you think will not be covered adequately with the committee that we have assembled. The group that we have assembled is distinguished, senior and diverse; Richard Haass, Jim Lindsay and I look forward to working with you in the coming months.

individually in detail but, rather, examines each of the five dimensions of choices that you will need to make. We can craft an integrated policy; some choices will constrain your actions in other dimensions, and we would be happy to discuss those interactions with you through the deliberations on this important policy issue. The five dimensions:

- a) Science. Discuss the state of the science on detection of climate change and attribution of that change to humans; discuss projections for the future; discuss the state of research on the impacts of climate change, with particular emphasis on three issues: i) the difficulty of making robust assessments of potential impacts of climate change; ii) the importance of assumptions about how humans and ecosystems will adapt to climate change; iii) the likelihood that the median projections for climate impacts, at least for the next few decades, will include winners and losers—with Russia, for example, as a potentially large winner; and iv) the potential for “abrupt” or “catastrophic” changes in climate that could exceed the ability of even highly adaptive societies (e.g., the U.S.) to adjust. In each, indicate the uncertainties and how they propagate through the full “integrated” analysis of the degree and impacts of climate change. The science is the essential backdrop to any policy, but you face policy choices regarding science as well. Work in this area is expensive, and it is possible that greater support of scientific research will lead to more precise answers in the future. Outline the major options and their cost; discuss areas where scientific research requires international collaboration, and indicate the (generally positive) state of such collaborations.
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 - ii) Demand that developing nations accept caps on emissions. Unlikely to succeed—they are well-organized and oppose such a policy. You could attempt to force them by linking with other issues, such as in the WTO, but that also is likely to fail. You could pay them the full cost of meeting those caps—as the US and other industrialized have done reliably in the world effort to control depletion of the ozone layer—but that approach would be very costly and prone to abuse as countries over-state the true costs. A campaign to raise awareness of climate dangers in developing countries could help to

sway public opinion and make these nations more willing to control emissions, but such campaigns are difficult to organize and unlikely to have any substantial near-term effects.

- iii) Reinvigorate the Kyoto system. The linchpin of this system is CDM. Discuss why, so far, no CDM projects have been approved; indicate potential difficulties with a larger CDM, especially as the system for approving CDM projects is already becoming cumbersome and politicized. Discuss options for streamlining the Kyoto system and indicate the conditions under which this would actually work—that is, it works only if the credits generated within CDM actually have value within the nations where the investors reside. If the value of the credits declines—as in today’s market—then CDM will dry up.
 - iv) Mainstream climate into development policy. A third approach to developing countries is to spawn a series of intergovernmental and private-public dialogues about the interactions between climate policy and development. In many countries key decisions are being made right now that have long-term implications for emissions and vulnerability to climate change. For example, China and India are both in the midst of encouraging large investments in gas infrastructures—where gas replaces coal in generating electricity, for example, emissions of greenhouse gases are cut in half. “Mainstreaming” would involve finding areas where climate-friendly policies are also consistent with development policies; it might put particular emphasis on infrastructures and other choices that “lock in” low-emission futures. There is already much evidence that through the normal process of diffusion of modern technologies that, for their level of economic development, the developing countries emit at a much less intense rate than did the industrialized countries. The “mainstreaming” strategy would recognize that achievement and aim to reduce the emission intensities even further. Discuss “emission intensity” as a measure of achievement and indicate the link between that and the measure proposed by the Bush administration—show figure on emission intensities of all the major economies.
- 6) Assessment of the Major options. This section, the conclusion to the cover memo, would review the three main options in light of the many dimensions and issues raised in this memo, pointing to key areas for policy choices.

II. Presidential Speech: “Modest Precaution”

[This speech would recognize global warming as a potential problem but emphasize the long time scales and uncertainties about impacts. The long time horizons allow time for deliberation and a measured response. The uncertainties about impacts underscore the need to prepare for adaptation—and to help others with the same task—rather than merely view this as a problem for costly abatement. Underscore that this is just one of a long series of uncertain and cumulative environmental issues—a category that includes air pollution, acid rain, lead, mercury, heavy metals. In all those issues in the past we have taken actions on the requisite time scales at costs that have proved acceptable—but crash programs with command and control strictures have been costly and must be

avoided. Use examples—particulate pollution in London, acid rain in the US, sundry water pollution problems.

[The policy advocated here would entail a modest increase in funding (from already very high levels) on the science of climate change—so that future policy actions are better informed about the real risks. It also envisions additional funding for development and testing of new technologies, including “breakthrough technologies” that could supply modern energy services (e.g., electricity or mobility) without causing any emission of greenhouse gases. This speech would emphasize modest efforts to work with key developing countries to adopt some new technologies and alter development paths. It would underscore that these nations already account for approximately half of world net emissions of greenhouse gases and show little sign of abating. Thus, even as we prepare modest efforts to control our own emissions, we should also adopt policies that encourage anticipation and adaptation to likely climate changes, such as higher sea level. The speech would indicate some concrete examples of such actions that have been undertaken already, such as higher seawater intake pipes for new power stations in coastal zones. As with efforts to control emissions, adaptation that is started now and conducted at the normal time scale of business will be sufficient.]

III. Presidential Speech: “Kyoto Plus”

[This speech would start with the same scientific information but emphasize the dangers that are lurking in the uncertainties. This option accepts the science as sufficiently robust to merit substantial action. This speech would emphasize the excessive cost of unilateral action, and the enormous benefits of a concerted global approach. The actions to be addressed would include strict limits on emissions of greenhouse gases, as a credible first step toward an eventual cut of 60% (or greater) over the next five decades. The speech would underscore the urgency in achieving a prompt departure from “business as usual” patterns of burning fossil fuels and land use patterns. This policy would include additional attention to strategies for adapting to climate change, which in turn would require addressing issues such as land use policy in coastal zones that will be prone to damage from flooding and storms, as well as policies on water use in arid and semi-arid areas, including the methods for allocating scarce water resources in the southwestern United States. Substantial investments in technology will be needed, as well as a large-scale plan for engaging developing countries—leading, eventually, to those countries implementing binding limits on their emissions of greenhouse gases. Throughout, this speech would emphasize the need to link the climate problem to other issues, such as energy security, which also demand the need for a much more efficient economy; the speech would underscore that other nations, such as China, are facing similar policy challenges and we can use those commonalities as the seeds for a collective and aggressive policy. Building the context for low carbon futures have strategic value—for the economy and our security—and must attract investment at a scale comparable with other great national projects. Success will speed the transition from oil and the “resource

curse" that has befallen so many oil exporters—and come back to hurt us, as in Saudi support for Sept 11. It will blunt the geopolitical leverage of oil rich nations; it will advantage gas in the short term, which could empower new geopolitical players, but in the long term it will decouple our prosperity from the vagaries of natural resources.

[This second speech emphasizes that such an aggressive course of action will require coordination and integration with the policies of other key nations. It is inconceivable that U.S. business would accept the higher costs of these actions unless their competitors—including, eventually, competitors in the developing world—were engaged in a comparable effort. This second option thus envisions re-engaging with the negotiating process that had been spawned by the 1997 Kyoto Protocol—a process that this administration, in large measure, exited when it refused to submit the Kyoto treaty for ratification. The original emission control goals in Kyoto are no longer achievable, and the Kyoto system has other flaws that our allies already recognize—we could use our re-engagement as an opportunity to fix these issues while keeping the basic framework and spirit of the Kyoto treat intact.

IV. Presidential Speech: "Making a Market"

[This speech would emphasize the need for action to address the long-term dangers of climate change but would look at the issue in the context of creating a global institution. It would draw on examples from other efforts to build global institutions, such as the GATT system and the robust international currency trading system. It would emphasize the long time scales involved, the need to avoid premature actions that introduce rigidity and excessive cost. It would start with the observation that each major jurisdiction in the industrialized world (EU, Japan, US) is adopting its own approach to the problem of climate change; over time, a more coordinated international strategy may evolve, but for now these parallel tracks offer opportunities for experimentation over a decade or longer. It would applaud the efforts of different US states in this regard but caution—as in the early days of other federal environmental programs—the need to avoid excessive fragmentation and thus the need for a more measured federal policy response. The speech would give particular attention to the role of emission trading as a favored policy strategy—modeled on the U.S. experience with trading sulfur dioxide emission rights established under the 1990 Clean Air Act Amendments. It would emphasize that creating an international trading system is akin to inventing a new form of money, and it is better to do that from the "bottom up" so that we can control the standards that will govern the value and circulation of these credits, rather than work solely "top down" through an international treaty that has no serious enforcement powers.

[To blunt criticism that this approach will be too slow and is inadequate to the severity of the climate change threat, this speech would underscore the need for a stronger US response in the form of a federal cap on emissions with a "safety valve" to ensure that the costs are not excessive. Mindful of the need for a policy that operates on the timescale of the turnover of the capital stock in the economy, this federal cap must be more modest than envisioned in Kyoto, and our policy

would explicitly open trading windows to other countries that adopt comparable policies. Through a series of bilateral trading relationships the U.S. would play a leading role in creating an integrated international system—much as the highly successful WTO/GATT rules on international trade evolved from a series of bilateral concession agreements. This third approach would engage developing countries through broad programs that create the context for lower future emissions—such as supporting a transition to natural gas in China, or sustainable transportation networks in India. This programmatic approach would not rely on emission trading or the “clean development mechanism (CDM)” of the Kyoto Protocol, as it would prove impossible to ascertain exactly how many credits (and with what security) would be due to the investors and host countries—indeed, including these countries in the market for emission credits might actually undermine the “strong currency” that we aim to create.

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From: Margarita Gregg [Margarita.Gregg@noaa.gov]
Sent: Wednesday, December 17, 2003 10:27 PM
To: CCSP@usgcrp.gov
Cc: CCSP_INFO@usgcrp.gov
Subject: Follow up to CCSP 16 December Meeting



Decisions and
Actions 16Dec03....

Attached is a brief update on some of the decisions and actions arising from the 16 December 2003 CCSP Principals' meeting. Additional action items for attention by CCSP Principals are also included in this message.

Please note, the next CCSP meeting is scheduled for Wednesday January 7 from 2:30-4:30 p.m. in the CCSP Office large conference room.

Thanks
Margarita

--
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03.12.03 EU 2005 emissions trading start in jeopardy: Deutsche Bank

The EU emissions trading scheme (ETS) is scheduled to be launched 1 January 2005, but the timetable can hardly be achieved Deutsche Bank in a report published Wednesday.

[Download the report](#)

Currently, EU Member States, both the current 15 and the acceding states, are busy transposing the emissions trading Directive into national laws and hammering out their national allocation plans (NAPs). The latter are supposed to be submitted to the European Commission by 31 March for current Member States, 31 May for the new members.

"In our view, the timetable for the lead-up to emissions trading is extremely ambitious," wrote Eric Heymann in the Deutsche Bank report.

"This view stems largely from the many grey areas and unanswered questions that remain, as well as the limited time available for solving problems in the initial allocation of credits."

Heymann quoted the following as the main uncertainties surrounding the launch of the EU ETS:

- * How many emissions credits will be issued?
- * How can emissions from each installation be measured in a reliable, comparable and transparent way?
- * Which base year is relevant for which installation?
- * Which criteria can be used as reliable proof of emission reductions in years gone by?
- * How is emissions trading to be harmonised with other environmentally-motivated policy measures in individual Member States?

Concluding, Heymann noted: "It will become clear in the near future that when it comes to implementing the (theoretically very convincing) emissions trading in practice, the devil is in the detail... The timetable for introduction can hardly be reached. While this is regrettable, it does not question the entire concept of emissions trading."

Last updated: 03.12.03

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