

**EDISON ELECTRIC  
INSTITUTE**

THOMAS R. KUHN  
President

December 4, 2002

TO: Chief Executive, Member Company  
Power Partners Company Representatives

FROM: Thomas R. Kuhn 

SUBJECT: CLIMATE CHANGE: LATE JANUARY 2003 KICKOFF FOR  
POWER PARTNERS, AND RESPONSE REQUESTED ON  
INDUSTRY INITIATIVES

The kickoff for the Bush Administration's voluntary industry climate programs – "Business Challenges" such as Power Partners and Climate Leaders<sup>1</sup> – is being finalized for the week of January 21-24, 2003. As you know, the Administration is committed to voluntary actions, rather than mandated targets and timetables, to address greenhouse gases (GHGs), and has set a goal of reducing GHG intensity by 18 percent by 2012. While the nature of events associated with the kickoff and subsequent activities is still under development, the launching of the "President's Energy Partners for Climate Action" – which includes other industries as well as our industry – will highlight a Washington, D.C. event.

The Power Partners program will feature a "big tent" approach, encompassing individual company activities as well as sector-wide industry initiatives. The Administration has strongly recommended that companies focus on quantitative, concrete and specific activities to reduce, avoid or sequester GHGs, or to reduce carbon intensity. Preliminary indications are that a number of Power Partners companies may consider committing to either a numerical range of tons of GHG reductions or a numerical (percentage) range of carbon intensity reductions.

The late January kickoff and associated activities will likely feature Cabinet Secretary-level officials on the government side, and some trade association presidents and company CEOs on industry's behalf. We will, of course, keep you informed of potential participation in such activities as they come into focus. In light of these events, we encourage additional companies to act now to join the 36 EEI and government utilities that are already members of Power Partners by contacting any of the EEI staff listed at the end of this memorandum.

<sup>1</sup> Power Partners is the voluntary climate partnership between the Department of Energy and the power sector, and Climate Leaders is the voluntary climate partnership between the Environmental Protection Agency and individual companies.

Voluntary reductions in greenhouse gas emissions will be at the heart of the Administration's climate plan. Building on the success of the voluntary Climate Challenge, EEI is launching a new round of company actions and industry initiatives. The identification and assessment of new efforts by individual companies will be facilitated by the forthcoming Web-based Power Partners Resource Guide. The Resource Guide will allow companies to select GHG mitigation options and activities that make sense given utilities' individual circumstances, and to adapt them for their own purposes. Communications materials also will feature past and ongoing activities of individual companies to reduce, avoid or sequester GHGs, including renewables.

Supplementing individual company actions will be the following industry initiatives:

- "UtiliTree II" so far has commitments from 22 utilities or companies for \$3.1 million.
- The "Coal Combustion Products Partnership," or C<sup>2</sup>P<sup>2</sup>, thus far has expressions of interest from 11 companies.
- The program to restore or reclaim abandoned mine lands (AML) so far has expressions of interest from four companies.
- The "Harvesting the Wind" initiative has attracted interest from nine companies.
- The "Biomass for Electricity Generation" initiative has garnered interest from 10 companies.
- The "International Power Partnerships" (IPP) initiative will be launched in the near future to develop projects with a climate and sustainable development focus.
- In the longer term, EPRI, EEI, other power sector groups and the government will initially collaborate on two climate technology R&D initiatives, "Pilot-Scale Test Centers for Engineering, Economic and Environmental Evaluation of CO<sub>2</sub> Capture and Containment" and the "Climate Technology Road Map."

In addition, the "Wise Electricity Use" program is being developed by EEI's Energy Services and Communication departments as a Web-based product.

**In view of the late January kickoff, we encourage you to let us know by Tuesday, December 31, 2002, if your company will be participating in one or more of these industry initiatives.** Information on the first six initiatives is contained in Attachments 1 and 2 to this memorandum.

If you have any questions about these activities or initiatives, please contact me or have your staff contact Quin Shea, Executive Director, Environment; Bill Fang, Deputy General Counsel and Climate Issue Director; or Eric Holdsworth, Director, Climate Programs. We look forward to your company's participation in Power Partners, Climate Leaders and industry initiatives. We will continue to provide you regular climate updates as the late January kickoff approaches, and look forward to further discussion of these matters with you at the EEI CEO meetings from January 7-10, 2003, in Naples, Florida.

### Summary of Industry Initiatives

- **UtiliTree II** – One approach to addressing greenhouse gases is to use trees to remove carbon dioxide (CO<sub>2</sub>) from the atmosphere and store it in leaves, tree biomass and roots, and soils. This concept has been demonstrated through our industry's UtiliTree Carbon Company (formed in 1995 with funding by 40 power generators), which is funding 10 projects. UtiliTree II is focusing on opportunities to plant trees in the lower Mississippi River Valley states, where UtiliTree has demonstrated success via seven projects to date. There are numerous reasons why it makes sense to support UtiliTree II, including: the projects result in carbon benefits and cost effectiveness as good as any in the U.S. (CO<sub>2</sub> cost below \$2 per ton); this region is the key federal and conservation group priority area for reforestation in the nation; the projects involve top-notch federal government and conservation group partners; and the projects provide major environmental benefits for waterfowl, migratory birds, songbirds, bears and other wildlife, plus improved water quality and flood control. As a result, the public holds tree planting in high regard.

EEI contact: John Kinsman, 202-508-5711 or [jkinsman@eei.org](mailto:jkinsman@eei.org).

- **Coal Combustion Products Partnership (C<sup>2</sup>P<sup>2</sup>)** – This project is a joint effort between the power sector and EPA aimed at diverting coal combustion products (CCPs) from land disposal and reducing greenhouse gas emissions by increasing CCP beneficial use. The beneficial use of CCPs as replacements for other materials reduces energy consumption associated with the mining, processing or manufacture of those materials. For example, manufacture of a ton of Portland cement produces one ton of CO<sub>2</sub>; manufacture of a ton of lime produces 1.5 tons of CO<sub>2</sub>. The use of CCPs in lieu of Portland cement, lime or other materials can result in significant CO<sub>2</sub> emission reductions, perhaps as much as 15 million tons annually. C<sup>2</sup>P<sup>2</sup> will consist of two main activities: 1) a challenge program aimed at increasing CCP use through education of potential CCP end-users, and 2) activities aimed at reducing or eliminating barriers to increased CCP use.

EEI contact: Jim Roewer, 202-508-5645 or [jroewer@eei.org](mailto:jroewer@eei.org).

- **Abandoned Mine Land Restoration** – In cooperation with state and federal partners, the focus of this program is to restore natural conditions to abandoned mine lands with the following environmental benefits: sequestering CO<sub>2</sub> via reforestation; reducing acid mine drainage and improving water quality; and developing wildlife habitat. At this time, we are concentrating on formation of an umbrella group of power generators led by EEI, EPRI and other interested parties to learn more about opportunities and to evaluate potential projects. We will schedule an introductory meeting with interested parties this fall.

EEI contact: John Kinsman, 202-508-5711 or [jkinsman@eei.org](mailto:jkinsman@eei.org).

- **Harvesting the Wind** – This initiative is designed to stimulate the production of electricity from wind resources through a variety of initiatives designed to make wind more attractive to power generators and utilities. The first step proposes a variety of analytic steps to better integrate wind into the existing transmission grid, which will be followed by analysis of where wind can be located on the existing transmission grid, and followed by a mass purchase of existing wind turbines as well as a vigorous wind prospecting program in the mountains of the eastern U.S.

The initiative further proposes to accelerate the technological maturation of wind generation technologies capable of generating electricity economically in a Class 4 wind regime, thereby making more of the land mass of the continental U.S. applicable for wind generation (roughly 20 times more Class 4 resources exist than Class 6). Class 4 sites are much closer to load centers -- about 100 miles average distance -- and represent 20 times the developable wind resource of Class 6 sites, which should reduce the need for new long-distance transmission lines to bring wind generated electricity to market.

The goal of Harvesting the Wind is the commercialization and field verification of competitive utility-scale (>100kW) wind turbines that perform economically in Class 4 wind regimes, and the commercialization of village power-scale (<100kW) wind turbines for village electrification and diesel fuel oil displacement in Alaska and the island nations of the world. Integration of a storage technology to stabilize wind turbine output may merit further examination too. The program may also be targeted to expedite development and field testing of a direct-drive turbine, which should substantially reduce electricity production costs. A due diligence committee is being formed to provide guidance and feedback to staff on this initiative, which will need approximately \$100 million over a multiyear period.

EEI contact: Chuck Linderman, 202-508-5652 or [clinderman@eei.org](mailto:clinderman@eei.org).

- **Biomass for Electricity Generation** – This industry initiative is designed to make biomass more useful as a boiler feedstock, either on its own or in conjunction with coal as a means of reducing emissions. The initiative aims to overcome some of the handling difficulties associated with certain biomass crops in traditional pulverized coal units. Fuel upgrading, including palletizing, is a potential programmatic goal in the near term; over the longer term, bioengineering technologies may need to be applied to create more energy intensity in various biomass feedstocks used for electric generation. Co-firing of biomass with coal may restrict the ability to market the resultant ash as a replacement for Portland cement, since the material will no longer meet ASTM standard C618.

A portion of the biomass initiative can also be directed towards the conversion of animal wastes (poultry, hog and cattle feedlot) into a gas for combustion and disposal. Portable digester systems and other new technologies offer opportunities to avoid the open air release of methane associated with intensive agribusiness, as well as avoidance of water pollution issues associated with agribusiness waste disposal. An industry committee is being formed to guide the development of this initiative.

EEI contact: Chuck Linderman, 202-508-5652 or [clinderman@eei.org](mailto:clinderman@eei.org).

- **International Power Partnerships Initiative (IPP)** -- See Attachment 2.

IPP contact: Ron Shiflett, 202-508-5507 or [rshiflett@eei.org](mailto:rshiflett@eei.org).

**INTERNATIONAL POWER PARTNERSHIPS INITIATIVE (IPP)**  
**EXECUTIVE SUMMARY**

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Fundamental to President Bush's climate change policy is the need for international activities including the investment in projects that produce measurable reductions in greenhouse gas (GHG) emissions. Our industry's International Utility Efficiency Partnerships, Inc. (IUEP), formed in 1995 in response to the Climate Challenge, supported international GHG reduction projects, and funded a total of 23 projects with private and DOE funding in 15 countries (Latin America, Asia, Eastern Europe, and Africa) from 1995-2002. A total amount funded of US \$4.56 million has the potential (conservatively) to leverage approximately \$1.18 billion in total project investment cost. 41.5 million metric tons CO<sub>2</sub> equivalent (MMT<sub>CO2E</sub>) of reductions (representing approximately \$600 million in actual private investment) are currently being produced by actual projects, and reductions totaling 54.32 MMT<sub>CO2E</sub> are under construction.

The successor program, IPP, intends to:

- identify international energy project development opportunities to continue EEI's leadership in supporting voluntary market-based mechanisms to reduce GHG intensity, to slow the growth in GHG emissions, and to address Administration reduction goals in a cost-effective manner; and
- provide a mechanism for U.S. industry to maintain a leadership role in international GHG reduction efforts which will support, through specific project development, the objectives of bilateral relationships entered into by the U.S. government.

At this time, the IPP initiative is forming a sponsoring group of U.S. utilities and international energy companies, as well as evaluating potential projects.

IPP contact: Ron Shiflett, 202-508-5507 or [rshiflett@eei.org](mailto:rshiflett@eei.org).

# INTERNATIONAL POWER PARTNERSHIPS INITIATIVE (IPP)

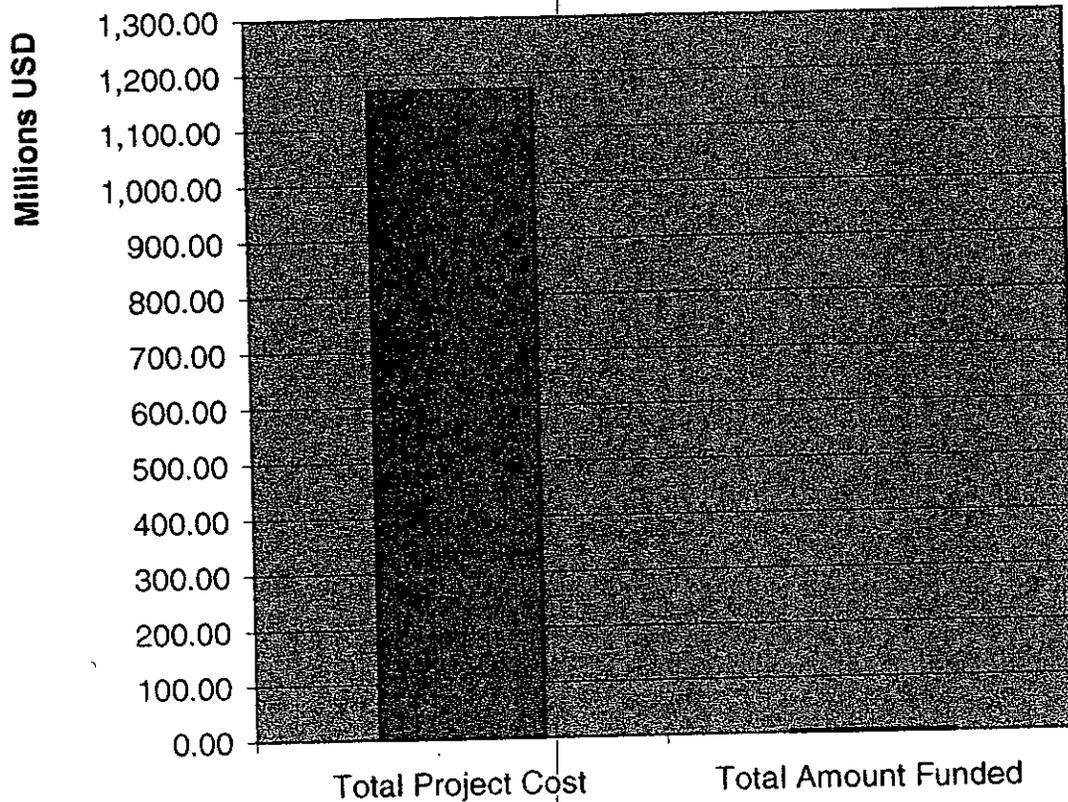
## INTRODUCTION

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When President Bush announced his sweeping climate change policy, in speeches on June 11, 2001 and February 14, 2002, the U.S. shareholder-owned electric utility industry took up the challenge of supporting his identified goals of reducing greenhouse gas (GHG) intensity and slowing the growth of GHG emissions, of strengthening the institutional foundation addressing GHG emission reductions, and of working with other Nations to develop an efficient and effective global response. The latter includes expanding bilateral cooperation, which recognizes the critical importance of targeted country participation in any effective global response to climate change. Industry has embraced these goals and is proposing a complementary program within the framework of three objectives: 1) any actions taken must be voluntary, 2) these actions must recognize federal budget constraints and therefore must be cost effective and leverage significant private sector investment, and 3) these actions must result in GHG reductions that are measurable and reportable under U.S. law. Within this framework, industry proposes an enhanced international strategy, built on current successful GHG emission reductions international programs, to contribute to the achievement of the President's stated goals.

Within this policy framework, the Edison Electric Institute and its international affiliates developed this proposal as one of industry's targeted approaches to these challenges. IPP seeks to improve and expand aspects of successful international models currently in operation, at least financial cost to the U.S. taxpayer. In fact, the current successful international industry model has resulted in the leveraging of approximately \$259 dollars of potential private investment for each public dollar expended.

## 1995-2002 DOE Leveraging Effect - IUEP Project Funding



International Utility Efficiency Partnerships, Inc. has funded a total of 23 projects with DOE funding in 15 countries (Latin America, Asia, Eastern Europe, Africa) from 1995-2002. A total amount funded of \$4.56 million USD has the potential (conservatively) to leverage approximately \$1.18 billion in total project investment cost. 41.5 million metric tons CO<sub>2</sub> equivalent (MMT<sub>CO2E</sub>) of reductions (representing approximately \$600 million in actual private investment) are currently being produced by actual projects, and reductions totaling 54.32 MMT<sub>CO2E</sub> are under construction.

Specifically, the goals of the IPP program are: (1) identify international energy project development opportunities to continue EEI's leadership in supporting voluntary market-based mechanisms to reduce the growth in GHG emissions in a cost-effective manner; (2) demonstrate shareholder-owned utility commitment to voluntary approaches to global climate issues; (3) provide a mechanism for U.S. industry to maintain a leadership role in international GHG reduction efforts which will support, through specific project development, the objectives of bilateral relationships entered into by the

U.S. government; and (4) develop partnerships with domestic and international private and public organizations, building on the relationships within the successful EEI international affiliates program and those developed by the International Utility Efficiency Partnerships, Inc. Further, EEI currently represents a large percentage of utility holding companies with current and planned offshore energy system investment.

The Administration has identified a number of countries which, in conjunction with the United States, account for over 75 percent of global carbon dioxide emissions from the consumption and flaring of fossil fuels. The industry led IPP initiative will support the Administration's strengthening of such a bilateral focus on climate change cooperation. This IPP support will facilitate the investment in and deployment of energy resources that will reduce the growth of GHG emissions, while building alliances towards practical, effective approaches to climate change. The Administration seeks to enhance cooperation with Japan, the European Union, Italy, Australia, Canada, the seven Central American countries, China, India, Korea and Brazil.

The IPP seeks to strengthen collaboration and clean energy investment between the U.S. and developing world. This initiative is intended to support the Administration's climate strategy of international cooperation on a bilateral basis.

The Administration will roll out its climate actions in December 2002, including federal government science, technology R&D and international initiatives, as well as "Business Challenges" such as Power Partners and Climate Leaders. IPP is designed to fit within the Power Partners initiative—a voluntary climate partnership between the DOE and the power sector.

This participation includes both near-term efforts to reduce GHG intensity and slow GHG emissions growth, and longer-term efforts to build capacity for future cooperation. It also means working hand-in-hand with energy development companies in both the developed and developing world to encourage such participation.

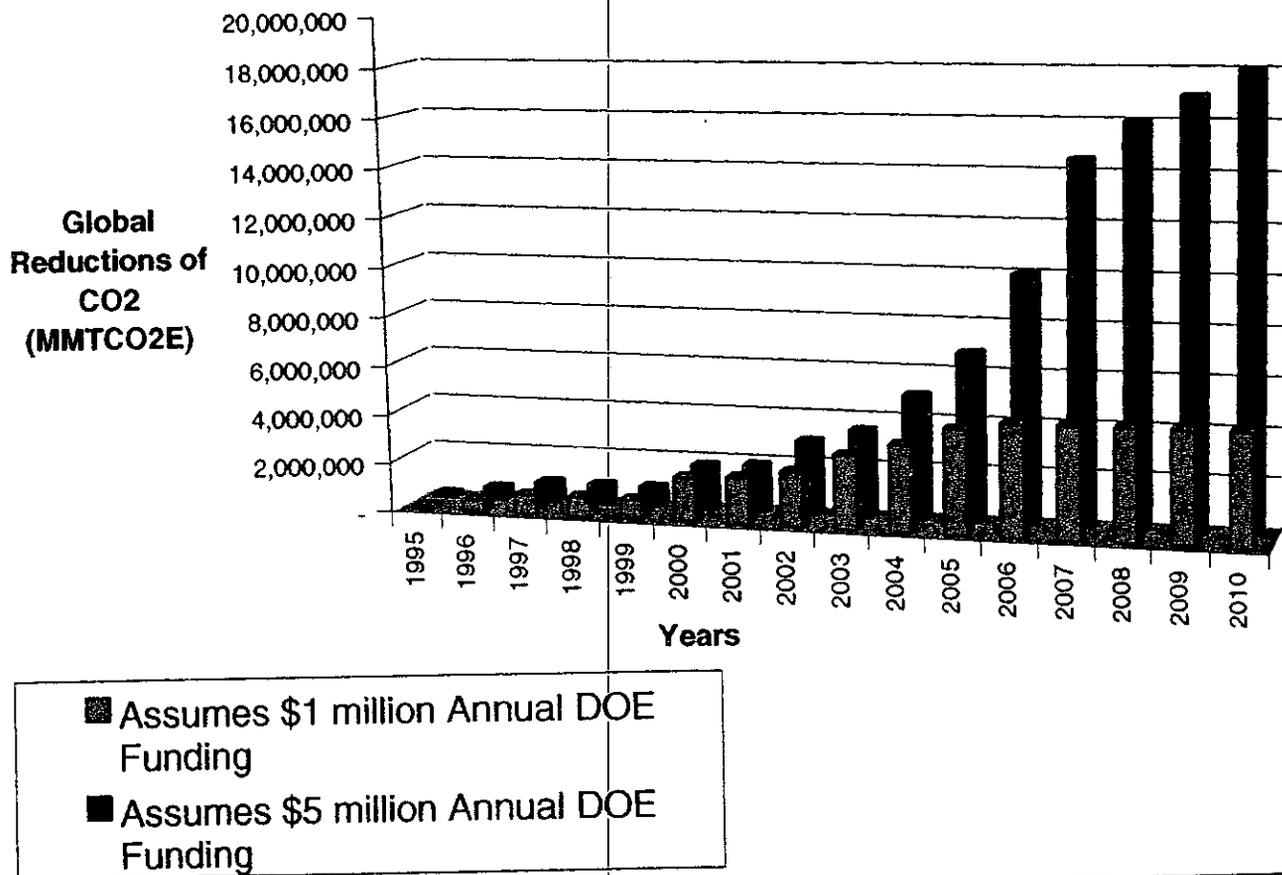
The IPP understands that in order for the U.S. to achieve the target that was set by the President in his February 14, 2002 climate change statement—of reducing U.S. GHG intensity by 18 percent over the next ten years—that there is a fundamental need for international cooperation that will facilitate investment in projects that produce measurable reductions in GHG emissions. The IPP initiative recognizes that a series of bilateral relationships will be necessary for an effective global response to climate change and, accordingly, IPP will encourage organizations to participate in our project development process so that new partnerships and private bilateral investment patterns can emerge from this effort. IPP will work hand-in-hand with other targeted developed and developing countries and their private industry to encourage such participation.

Through its partnerships and within its own development activities, IPP will identify energy projects in the developing world that foster economic growth in the U.S., as well as in the developing world. These projects use measures that include broad-based market programs as well as new and cleaner energy production and pollution control technologies. Clean energy technology transfer is one of the important elements to help achieve the U.S. GHG reduction goal. IPP is committed to identifying and obtaining funding for projects that promote the use of renewable energy and clean energy technologies, among others. We believe that much existing technology is not currently exploited to its full potential and that there are many number of examples of processes, equipment, and practices which can use energy efficiently.

The IPP will build on the past industry efforts to promote, manage and register international projects that have the potential to reduce GHG emissions. With a modest U.S. federal government investment (see attached chart), IPP believes that by promoting specific energy project development, it can assist the U.S government achieve significant actual GHG reductions in accordance with the newly initiated bilateral relationships.

# International Power Partners Initiative CO2 Emission Reductions

## Target GHG Reduction Goals



### Qualifying GHG reduction projects include:

1. Fuel system actions: fuel switching to natural gas and renewable energy development
2. Conventional power generation system actions such as boiler improvements, waste heat recovery systems, and energy management systems
3. Transmission system actions
4. Distribution system actions
5. End-use energy efficiency
6. Expansion of rural electrification activities
7. Data, research & monitoring actions