

What Those with Responsibility for and Expertise in Maintaining Electric Reliability Are Saying About EPA's Regulations

EPA has seriously underestimated the problem:

- NERC (2011 Assessment and testimony to FERC) on 4 EPA rules:
“Environmental Regulations are shown to be the number one risk to reliability over the next 1 to 5 years.” 36-59 GW of retirements ***on top of*** 38 GW of retirements announced just in the last year – multiples higher than EPA is predicting. 1350 units at 525 stations affected. “So for regulators, based on the results of this specific assessment...more time is needed to ensure NERC reliability standards can be met.”
- SPP (9/20/11 letter to EPA) on CSAPR: “negative implications to the reliable operation of the electric grid in the SPP region ***raising the possibility of rolling blackouts or cascading outages that would likely have significant impacts on human health, public safety and commercial activity.***” (Emphasis supplied.)
- ERCOT (9/1/11 study) re CSAPR: Texas is at risk of rolling blackouts this Winter and next Summer.
- PJM (8/4/11 letter to EPA and 11/22/11 comments to FERC) re MATS (utility MACT) rule: “the analysis supporting the Proposed Rule has ***underestimated the risks to reliability of electric supply*** in light of the hard deadlines imposed pursuant to [Section 112 of the Clean Air Act, the statute under which EPA is promulgating the MATS rule].” “[T]he ***number of potential retirements and retrofits, and the tight timeframe associated with the same, could be unprecedented in scope.***” (Emphasis supplied.)
- MISO (10/13/11 report and 11/22/11 comments to FERC): (a) “[r]eliability in the Midwest will be severely challenged through implementation of the proposed rules;” (b) approximately 13 GW of capacity (and possibly as high as 22 GW) will retire as a result of EPA regulations in the MISO footprint alone (far higher than EPA predicted); (c) reserve margin deficiencies are observed as early as 2012 (and they got worse through 2015 and beyond); (d) \$880 million worth of transmission upgrades necessary to mitigate the impacts of those retirements on electric system reliability (\$523 million of these upgrades are “long lead time” upgrades that cannot be in place by 2015); (e) ***\$33 billion worth of infrastructure investment*** would be required in the MISO footprint “to retrofit and/or replace units;” (f) MISO staff not yet able to fully understand the reliability impacts of retrofit schedules—i.e. how the system would be able to handle large amounts of maintenance outages necessary for significant retrofits by 2015. (Emphasis supplied.)
- **Reliability First Corporation** (Long Term Resource Assessment for 2012-2021): EPA-driven unit retirements could create reserve margin deficiency by 2015, “MISO would need additional resources beyond those [planned and conceptual resources] identified in this assessment.”

○ **7 state public service commissions** (SC, SD, WV, NC, TX, LA, WY), expressing concern over lack of adequate reliability assessment, have asked FERC to convene joint FERC-state board to study the issue (FERC Docket No. ELII-62-0000).

○ **Southern Company** (11/22 comments to FERC): “We have concluded that *the EPA regulations cannot be fully implemented consistent with our responsibility to provide adequate reliability and without interruption or rationing of electricity service* until not less than six years after the Utility MACT regulation and requirements become final There is not an adequate basis for the EPA to conclude that the reliability of the electric grid can be adequately maintained under the directives imposed by the Utility MACT rule.” (Underlined emphasis in original, other emphasis supplied.)

○ **Westar Energy** (11/22/11 comments to FERC): “largely because of the short time line for implementation allowed by EPA, evidence available to the [Federal Energy Regulatory] Commission and EPA demonstrates that **CSAPR poses a grave threat to reliability of the electric system Westar would need to ‘shed load’ that is, implement rolling blackouts – from April through August because the reduced generation necessitated by CSAPR compliance would be substantially less than customer demand for electric energy.**” (Emphasis supplied.)

○ **FERC staff** last year conducted a preliminary assessment showing 131 GW of electric generation “very likely,” “likely,” or “somewhat likely” to retire, a figure an order of magnitude greater than EPA’s estimate.

EPA has not performed a proper reliability assessment:

EPA CSAPR and MATS reliability assessments are no more than regional resource adequacy studies which fail to assess effect of specific retirements on local reliability and potentially cascading impacts:

○ **PJM** (8/4/11 comment letter to EPA on MATS): *EPA’s “analysis falls short* in providing the detailed and rigorous examination of reliability as PJM has described in the previous sections, especially as applied to local reliability issues.” (Emphasis supplied.)

○ **FERC Chairman Wellinghoff** (9/14/11 hearing before Subcommittee on Energy and Power of the House Energy and Commerce Committee), regional and national resource adequacy studies of the type EPA conducted are “*irrelevant*” in assessing reliability. (Emphasis supplied.)

○ **FERC Commissioner Moeller** (8/1/11 response to Senator Murkowski), referring to issues that relate to localized reliability concerns, “[a]ccording to the information that I received from Commission staff, they have pointed out to EPA that a reliability analysis should explore transmission flows on the grid, reactive power deficiencies related to closures, loss of frequency response, black start capability, local area constraints, and transmission deliverability.”

○ **FERC Commissioner Moeller** (at 9/14/11 Energy and Power Subcommittee hearing): “[W]hat really matters is how [retirements] impact operations and reliability at the

local level, because of the specifics of load pockets and the physics of electricity flow. And I actually thought the FERC staff study was pretty good, because it went into a lot of the variable factors....”

○ **FERC Commissioner Spitzer** (at same hearing): *“The aggregate studies aren’t helpful on the question of reliability.* They have some merit in determining potentially wholesale power prices across the country and across the grid, but, as my colleagues have all pointed out, location matters in electricity. And substantial excess capacity in Nevada may not help the folks in Arizona where I come from if 3 coal plants disappear from the grid.” (Emphasis supplied.)

○ **FERC Commissioner Norris** (at same hearing): [H]ere’s my concern from a reliability perspective: smaller plants are typically dirtier and older, but there are advantages in the system to smaller plants. They ramp up and down faster, they might be in locations where the voltage support is key. And I can go through a variety of other examples of where they’re located can make a lot of difference. *And that’s why I think we need to dig down deeper into the impacts here, because they will be a disproportionate number of smaller, older, dirtier plants affected. But their role in the overall electric grid needs to be better analyzed.*” (Emphasis supplied.)

FERC joins chorus of criticism of EPA’s failure to conduct cumulative assessment

○ **FERC Commissioner LaFleur** (9/14/11 prepared testimony to Energy and Power Subcommittee):

“For some time now, we have been hearing about the EPA’s proposed air and water regulations and their potential to affect our energy supply. *Although not all of these regulations are final, I believe it is important to consider them as a package when assessing their potential effect on reliability.* This is because the owner of a power plant will appropriately consider all of its EPA compliance obligations, among other factors, in determining whether it is economically feasible to retrofit or repower a unit, or whether it makes economic sense to retire the unit.” (Emphasis supplied.)

○ **FERC Chairman Wellinghoff** (responses to questions from the Energy and Power Subcommittee following hearing):

Question: Why did Commission staff take the position that it was important to cumulatively assess the impact of all the upcoming EPA regulations? During meetings with EPA staff, did EPA explain its preference for completing “individual best case studies” (as opposed to a cumulative assessment), as suggested in the documents accompanying the Commission’s July 27th letter?

Answer: *Commission staff took this position because the effects to system reliability are based on the cumulative impact of all the proposed regulatory factors. I do not know why EPA did not do a cumulative assessment.* (Emphasis supplied.)

○ **FERC Office of Electric Reliability :** EPA’s analysis “focused only on the effects that the Transport Rules would have on the nation’s electric generation capacity—specifically the reduction of coal plants [and] did not consider the cumulative impact from additional legislative initiatives, including water restrictions, coal ash byproduct sequestration or any renewable generation mandates” (note of 10/20/10 meeting with EPA in material produced by FERC for Senate Energy Committee); FERC OER “wants EPA to use a holistic approach when studying the impacts of the EPA rule ... whereas EPA would like to do individual best case studies” (note of 11/4/10 meeting with EPA in material produced by FERC for Senate Energy Committee).