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November 30, 2011

Via Electronic Mail and U.S. Mail

The Honorable Cass R. Sunstein
Administrator, Office of Information and Regulatory Affairs
Office of Management and Budget
Eisenhower Executive Office Building
1650 Pennsylvania Ave NW
Washington, DC, 20503

Re: Electric System Reliability and the Utility Air Toxics Rule

Dear Administrator Sunstein:

We write in support of the U.S. Environmental Protection Agency's (EPA's) well-founded conclusion that EPA's long-delayed hazardous air pollution standards for power plants (the "Utility Air Toxics" rule) can be implemented without substantial impacts to the reliability of the bulk electric power system. Available evidence, including Congressional testimony from all five FERC commissioners, demonstrates that any impact on the electricity system is entirely manageable, and can be addressed through improved planning processes – processes that FERC and grid operators are already undertaking.

Despite that evidence, industry interest groups have persisted in claiming that the Utility Air Toxics rule will adversely affect reliability. First, the Electric Reliability Coordinating Council ("ERCC"), an industry advocacy group, recently wrote you arguing that the Utility Air Toxics rule would cause so many retirements as to trigger system-wide electric resource adequacy problems. The evidence, as discussed below, does not support this claim.

Several regional transmission organizations (RTOs) have pressed for a more limited "safety valve" in the rule which would allow compliance waivers when particular plants which are necessary for reliability cannot retrofit or retire in time. Such highly localized reliability problems can be avoided by prudent advance planning. Indeed, many RTOs have begun to adopt such planning processes. If unavoidable local system constraints nevertheless prevent a particular plant, or plants, from complying with the law – and there is no evidence that any significant problems will emerge – EPA's enforcement

discretion provides ample tools to prevent any serious reduction in system reliability without unfairly penalizing plant-owners.

There is, therefore, no reason to weaken or delay the vital public health benefits which will result from the Utility Air Toxics rule – benefits which vastly exceed the rule's cost.

We discuss both sets of concerns in detail below.

I. The Utility Air Toxics Rule and Resource Adequacy

Although ERCC suggests that EPA's reliability analysis is "missing" from the final rule, EPA actually conducted and presented an extensive reliability analysis. Based on that analysis, EPA concluded that falling natural gas prices and flattening electricity demand were more important in driving coal retirements than the rule, and that in any event any rule-driven retirements would not cause large scale resource adequacy problems.

> EPA's analysis shows that the lower cost of alternative generating sources (particularly the cost of natural gas) as well as reductions in demand, have a greater impact on the number of projected retirements than does the impact of the proposed rule. EPA's assessment looked at the reserve margins in each of 32 subregions in the continental U.S. It shows that with the addition of very little new capacity, average reserve margins are significantly higher than required (NERC assumes a default reserve margin of 15 percent while the average capacity margin seen after implementation of 15 percent while the average capacity margin seen after implementation of the policy is nearly 25 percent). Although such an analysis does not address the potential for more localized transmission constraints, the number of retirements projected suggests that the magnitude of any local retirements should be manageable with existing tools and processes.

76 Fed. Reg. 24,976, 25,055 (May 3, 2011); *see also* EPA, *Resource Advocacy and Reliability in the IPM Projections for the Toxics Rule* (May 3, 2011) (modeling demonstrating that reserve margins will remain sufficient as the rule is implemented).

Independent analyses, including the testimony of all FERC Commissioners (discussed below), support EPA's conclusion that only localized impacts are likely.

Impacts are limited, in large part, because the Utility Air Toxics rule is unlikely to cause an unmanageable number of coal power plant retirements.

The Congressional Research Service ("CRS") in August of this year undertook a comprehensive survey of EPA's regulatory efforts. CRS's analysis demonstrated that the electric sector can comply with the Clean Air Act – including the Utility Air Toxics rule – without suffering the "train wreck" that industry has used as its main talking point in seeking to avoid state-of-the art pollution controls. James E. McCarthy & Claudia Copeland, Congressional Research Service, *EPA's Regulation of Coal-Fired Power: Is a 'Train Wreck' Coming*? (Aug. 8, 2011). As CRS explained, most modern coal power plants have already installed the technology they will need to comply with the rules, *id.* at 31, meaning that retirements will occur largely among "older, smaller, less efficient units" which are already leaving the market, *id.* at 30. Nearly 60% of all coal plants already meet the proposed mercury standard, and already have scrubbers installed – suggesting, once again, that retirements will occur largely amongst smaller, older plants whose loss is unlikely to present a resource-adequacy problem. M.J. Bradley and Associates & Analysis Group, *Ensuring a Clean, Modern Electric Generating Fleet while Maintaining Electric System Reliability: Summer 2011 Update* (August 2011). at 8-10.

Retirements among this class of old, inefficient plants will not greatly reduce the resources needed to power the grid, if they do so at all. There is substantial unused capacity on the grid, including in existing gas-fueled plants. And as CRS notes, "the industry is capable of adding new generating capacity in a short time. From 2000-2003, electric companies added over 200 GW of new capacity, far more than any of the analyses suggest will be needed in the 2011-17 timeframe." *Id.* at 34.

Other analysts concur that capacity reductions resulting from compliance with the Clean Air Act are likely to be relatively small, and readily managed. The North American Electric Reliability Corporation (NERC), in its 2011 Long-Term Reliability Assessment (Nov. 2011), for instance, assessed the impacts of *all* EPA rules, not just the Air Toxics rule. It projects that, even as the EPA rules are implemented, "reserve margins" – the excess capacity companies maintain to ensure resource adequacy – remain above required levels. NERC Assessment at 7. NERC anticipates reliability problems only "if no action is taken to replace existing resources," *id.* at 119, a scenario which, again, simply will not occur. *See, e.g.*, CRS Report at 34; Bipartisan Policy Center, *Environmental Regulation and Electric System Reliability* at 25-26 (June 13, 2011) (collecting analyses and concluding that any capacity needs "fall well within the realm of what the industry has constructed in recent periods," particularly as, according to some analyses, the industry will have 100 GW of *surplus* capacity in 2013, due to reduced electricity demand).

Thus, in every region of the country, even after the Utility Air Toxics rule is implemented, reserve margins are likely to remain above reliability targets. *See* M.J. Bradley and Associates & Analysis Group, *Ensuring a Clean, Modern Electric Generating Fleet while Maintaining Electric System Reliability: Fall 2011 Update* at 4 (Nov. 2011) (documenting that "projected reserve margins in 2014 range from 28% to over 40%, well above the required margins of between 12.5% and 15%).

Downtime required to install controls at plants that will continue to operate also does not pose systemic reliability problems. As EPA has explained "these outages usually occur in the shoulder months … when demand is lower (and, thus, reserve margins are higher)." 76 Fed. Reg. at 25,055. The necessary installations can be completed by the statutory three-year deadline without threatening reliability, according to EPA's analysis; and if necessary, EPA or a state can grant up to a one-year extension to any plant that needs that additional time to install controls. CRS confirmed EPA's conclusions, pointing out that the industry installed 60 GW of scrubbers in 2008-2010 alone, and that 96 GW of coal generation was retrofitted in five-years in the early 2000s – all without impairing reliability. That track-record demonstrates that the more limited retrofits necessary for compliance with the Utility Air Toxics rule can be completed successfully. CRS Report at 33.

Results from RTO markets and RTO system planning documents similarly indicate that there will be no resource shortfalls resulting from compliance with the Utility Air Toxics rule. Most notably, PJM, the RTO covering much of the mid-Atlantic and Midwest, and which contains nearly 80,000 MW of coal capacity, now has results from its forward capacity auction. That auction requires generators to offer capacity for the 2014-2015 period (the compliance deadline for the Utility Air Toxics rule) three years in advance. The results of the forward capacity auction, according to PJM, indicate no resource shortfalls. Although coal resource capacity declined by 6,900 MW, demand response resources increased by 4,836 MW. As a result, according to PJM:

> For the 2014/2015 Delivery Year, PJM estimates that the RTO will carry a reserve margin by 19.6 percent …. Even with the potential retirement of coal capacity already announced by [certain entities], there are also announced commitments to replace a portion of that capacity with new gas-fired capacity. This means that the RTO will still carry a reserve margin in excess of the target 15.3 percent installed reserve margin. In short, includ[ing] the potential for new entry from other resources that has occurred in recent years [] *a system-wide resource adequacy problem does not appear imminent in PJM from the reduction in cleared coal capacity* in [the forward capacity market] and from announced retirements.

PJM Interconnection, *Coal Capacity at Risk for Retirement in PJM* at 33 (emphasis added). (Aug. 26, 2011). *See also* M.J. Bradley and Associates & Analysis Group, *Fall 2011 Update* at 9 (documenting that ISO-NE has also secured sufficient capacity for 2014-2015).

As PJM's Senior Vice President for operations and planning has testified before FERC, "PJM has not identified any overarching reliability impacts associated with potentially retiring units that cannot be resolved with transmission upgrades within the four year period allowed by the proposed [Utility Air Toxics] rule." Testimony of Michael J. Kormos, Senior Vice President, PJM, before FERC, Docket Nos. AD12-1-000, RC11-6-00 at 8 (Nov. 30, 2011).

MISO, the RTO covering the remainder of the Midwest and northern Plains, has expressed somewhat stronger concerns, but, like PJM, does not expect capacity to fall below "minimum capacity requirements." Testimony of Clair Moeller, Vice President Transmission Asset Management, MISO, before FERC, Docket Nos. AD12-1-000, RC11-6-00 at 2 (Nov. 30, 2011 (Nov. 30, 2011). Instead, MISO's concerns are narrowly focused upon the specific reliability impacts of retrofits and retirements at "some key units." *Id.* Those few units, if they exist, do not warrant a wholesale weakening of the Utility Air Toxics rule's requirements. As set forth below, if such unavoidable local reliability problems emerge – and there is no reason to believe that they will – the Agency's enforcement discretion is sufficient to avoid unfairly penalizing plant-owners which, despite their best efforts and thorough advance planning, cannot comply with the rule without compromising local reliability. *Id.* at 4-5.

Although the ERCC letter you received reports some of the high-end compliance cost predictions of MISO's analysis, it does not provide the most important of MISO's reliability conclusions: that the EPA rules have the potential to *improve* system reliability. MISO writes:

> The impact of EPA regulations on the Resource Adequacy of the MISO system is dependent on how the system is maintained during the retirement or replacement of affected units. *Assuming a controlled replacement of capacity as it is retired, system reliability is actually improved.* As the older and less reliable units are removed, the system average forced outage rate decreases marginally. . . . Removal of capacity without replacement is an unlikely scenario and maintenance of the Planning Reserve Margin is obligated under the MISO tariff. . . . *If the units identified as at risk for retirement are all replaced with units that have better availability, system reliability will improve.*

MISO, *EPA Impact Analysis: Impacts from the EPA Regulations on MISO* at 33-34 (Oct. 2011).

Consistent with these conclusions, all five FERC Commissioners have testified before Congress that the EPA rules can be successfully implemented with sufficient planning on behalf of the RTOs and other grid operators, and with FERC's support. Although the Commissioners differ somewhat as to the best planning framework going forward, and as to how much implementation lead time planners will need, they agree that the rules will not trigger a resource adequacy crisis. Instead, the Commissioners expect reliability issues to be local, limited to a small number of specific plants, and primarily to be solvable at that level by grid planners – without any alteration of EPA's proposed rule.

According to Chairman Jon Wellinghoff, planning authorities already "have or could obtain all the necessary data and tools" to understand, and address "any potential local and regional impacts of these EPA regulations on electric reliability." Testimony of Chairman Jon Wellinghoff Before the House Subcommittee on Energy and Power at 1-2 (Sept. 14, 2011).

At the same hearing, Commissioner LaFleur likewise testified that grid planners will focus on problems at the level of "each case, each locality, and each region," in order to develop "targeted and discrete solutions." LaFleur Testimony at 1-3. As Commissoner Spitzer put it, "it will be the rare situation when a regulated entity finds itself, after adequate time for planning, in a position of having to choose between compliance with one regulator's rules over another." Spitzer Testimony. at 3.

Commissioner Moeller has expressed the strongest concerns and has argued for a somewhat longer planning period and a greater role for FERC and EPA in this problem-solving exercise, but he, too, emphasizes that large scale resource adequacy problems are unlikely to occur, testifying:

> [T]he debate over the amount of coal generation that should be retired may miss the larger point. Except for most hydroelectric facilities, our existing electric generation is very likely to be retired in this country within 40 years, to be gradually replaced with newer generating plants. As I have emphasized, instead of concentrating on how many coal plants to retire, the focus should be on the timing of when specific units are likely to retire and what needs to be done to allow them to retire with the least disruption to the nation.

Moeller Testimony at 4.

Finally, Commissioner Norris testified that he is "sufficiently satisfied that the reliability of the electric grid can be adequately maintained as compliance with EPA's regulations is achieved." Norris Testimony at 1.

In sum, the settled consensus of most independent analysts, FERC, and a growing number of RTOs, is that the Utility Air Toxics rule will not cause a nationwide resource adequacy problem. Instead, it may accelerate existing market trends favoring the replacement of inefficient older coal plants with cleaner, more reliable power.[1] To the extent that reliability problems occur during this transition, they can and should be managed without any alteration in the rule's standards or deadlines.

II. Addressing Localized Reliability Problems at the Grid Planning Level

Although the specter of nation-wide blackouts that ERCC raises will not come to pass, grid planners will, of course, have to manage the retirement and retrofit of individual plants. Grid planners are familiar with this exercise and FERC's recent Order 1000 will solidify their authority to properly plan for EPA rules. Prudent planning should resolve any problems before the statutory deadline. In the unlikely event that an individual plant, or plants, cannot comply in the four-year timeframe already provided by the Clean Air Act despite responsible grid-planning, EPA's enforcement discretion provides it sufficient tools to fairly address that plant or plants. *See* 42 U.S.C. § 7413(e)(1)-(2). EPA has, for example, the ability to issue consent orders (or, in an extreme case, a consent decree) for a specific plant or plants, which can provide for delayed compliance along a defined, and fair, schedule, while requiring appropriate steps to minimize toxic emissions during that time. Managing these issues, in other words, does not warrant weakening or delaying the EPA's public health protections, but rather requires the sort of careful local and plant-specific planning and coordination by FERC, grid planners, and EPA that is already occurring.

Specifically, in Order 1000, FERC directed all grid planning authorities (both in RTO regions and in the rest of the country) to incorporate the effects of public policies, such as the Utility Air Toxics rule, directly into their regular

[1] ERCC cites a Wall Street Journal editorial and fragments of some more than year-old assessments to argue for a larger resource impact, but these citations are neither authoritative nor compelling. The FERC "staff analysis" which ERCC asserts predicts 81 GW of retirements, for instance, was developed at some point in 2010, before EPA released the final CAIR or the proposed Utility Air Toxic rule, and before it become clear that EPA's Clean Water Act 316(b) rules would not require cooling towers at most plants. The later, more complete, analyses we discuss above reflect current realities. *See, e.g.* Wellinghof Testimony at 8 (explaining that the 81 GW retirement figure was an "informal, preliminary assessment" that has since been revised downwards).

transmission planning processes. 76 Fed. Reg. 49,842, 49,876-78 (Aug. 11, 2011). Each planner will amend its rules in response to that Order no later than October 11, 2012 (for regional plans) or April 11, 2013 (for broader interregional planning processes) – well before the Utility Air Toxics rule compliance deadline. Most planners are already accounting for the EPA rules in their plans, and will use their Order 1000 compliance filings to further strengthen processes which are already in place.

FERC and the grid planners are therefore able to manage the localized reliability impacts of the EPA rules as proposed. The Order 1000 reforms, and related measures (such as increasing the notice time which generators must give before retiring plants) will help planners maintain reliability as plants retire. *See generally* M.J. Bradley and Associates & Analysis Group, *Fall 2011 Update* (describing the many tools available to FERC and grid planners).

Some RTOs have nonetheless requested that EPA build a "safety valve" into the Utility Air Toxics rule, which would waive the rule's compliance obligations for plants that may not be able to retire without impairing local grid reliability. *See, e.g.* Safety Valve Proposal of PJM, ERCOT, MISO, SPP, and NY ISO (Oct. 14, 2011). The broad waiver process suggested by the RTOs is neither necessary, nor legally permissible. It is not necessary, because (as set forth above) few if any plants will face reliability-related difficulties in complying with the standards as proposed. It is not legally permissible because the Clean Air Act leaves the Agency no discretion to bypass its statutory deadlines. The Act directly and comprehensively addresses the timeline by which plant-owners must comply with its air toxics standards. The Agency can provide no more than three years for existing sources to comply. 42 U.S.C. § 7412(i)(3). EPA (or a state with an approved Title V permitting program) can extend that deadline for up to one year, on a plant-by-plant basis, "if such additional period is necessary for the installation of controls." 42 U.S.C. § 7412(i)(3).

The speculative, limited, and highly localized nature of the suggested reliability challenges poses no threat to national security interests sufficient to justify the Presidential two-year exemption authorized by section 112(i)(4) of the Act, 42 U.S.C. §7412(i)(4). Nor could anyone plausibly claim that the "technology to implement" the Air Toxics standards is "not available," as required by that section. *Id.* Perhaps for that reason, industry proposals invoking that two-year extension make no claim that the desired extensions would be provided only where necessary to secure national security interests; they instead ask the President to (illegally) authorize extensions that would be issued according to the economic- and business-considerations, *inter alia,* contained in state "integrated resource plans." *See* Comments on National

Emission Standards for Hazardous Air Pollutants from Coal- and Oil-Fired Electric Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units, submitted by Edison Electric Institute on August 3, 2011, at p.6.

While the circumstances under which additional extensions are available are constrained by the statute, EPA's enforcement tools – in particular, administrative consent orders, and consent decrees – allow it to avoid unfairly penalizing any individual plant-owners who, despite a vigorous good-faith effort to comply, cannot do so without compromising system reliability. Such plant-owners will need to demonstrate that compliance could not be achieved; the law does not permit EPA to simply ignore the Act's requirements, or to issue a regulatory exception masquerading as an exercise of enforcement authority. Only by working assiduously to comply with Order 1000 and to address as many reliability problems as possible before the Air Toxics rule's statutorily-required compliance deadlines, can RTOs and plant-owners place themselves in a position to make that demonstration if and when they fail to meet the standards by the prescribed deadline. *See* 42 U.S.C. § 7413(e)(1)-(2) (penalties for violation of Clean Air Act requirements depend, *inter alia,* on "good faith efforts to comply" with requirements).

Consent orders and decrees must, moreover, be narrowly crafted to minimize hazardous air pollutant emissions. Parties to a consent decree may not "agree to take action that conflicts with or violates the statute upon which the complaint was based." *Local Number 93, Int'l Assoc. of Firefighters v. City of Cleveland*, 478 U.S. 501, 526. "[T]he focus of the court's attention in assessing the agreement should be the purposes which the statute is intended to serve." *Citizens for a Better Environment v. Gorsuch*, 718 F.2d 1117,1125 (D.C. Cir. 1983).[2] Given Congress's strong statutory mandate for pollution control, consent orders or decrees would therefore need to restrict plant emissions as much as possible while maintaining grid reliability. "[R]eliability-only dispatch" requirements may consequently be imposed, to ensure that these few laggard plants cannot operate more than the grid requires, and thereby avoiding excess emissions while planners work to solve any issues preventing their full retirement. *See* John Hanger, & Clean Air Task Force, *Reliability-Only Dispatch: Protecting Lives & Human Health While Ensuring System Reliability* (Oct. 2011) (describing such dispatch rules). Notably, MISO has endorsed this dispatch model. MISO Testimony at 5.

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[2] *See also United States v. Carpenter*, 526 F.3d 1237, 1242 (9th Cir. 2008) (holding that agencies may not "agree to settlement terms that would violate the civil laws governing the agency"); *Executive Business Media, Inc. v. Dep't of Defense*, 3 F.3d 759, 761-62 (4th Cir. 1993) (same).

This collection of tools, beginning with FERC's improved grid planning protocols, and ending with EPA's discretion to establish a limited number of delayed compliance regimes through consent orders or decrees, is sufficient to manage the Utility Air Toxics rule's reliability impacts. As such, the appropriate response to reliability concerns is to improve planning, rather than to weaken the restrictions on hazardous air pollutants which Congress, and good public policy, mandate.

III. Conclusion

As EPA Deputy Administrator Bob Perciasepe recently testified, "[w]e do not have to choose between significant public health benefits from reducing air pollution from power plants and a robust, reliable electric grid." Perciasepe Testimony to the House Committee on Oversight and Government Reform (Nov. 1, 2011). The data shows that the Utility Air Toxics rule will capture extraordinary public health benefits at limited cost to the industry, and without causing unmanageable reliability problems. On the contrary, FERC and the grid planners are already working to accommodate the effects of the rule. As older, dirtier plants retire or retrofit, the public will benefit from cleaner air and a more reliable power grid.

Sincerely,

/s

Sanjay Narayan
Craig Segall
Sierra Club Environmental Law Program