



September 5, 2014

Public Service Commission of Wisconsin
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American Coalition for Clean Coal Electricity Comments on the Environmental Protection Agency's Proposed Carbon Guidelines

Thank you for the opportunity to provide comments regarding the impact of the U.S. Environmental Protection Agency's (EPA) proposed guidelines under section 111(d) of the Clean Air Act that regulate carbon dioxide (CO₂) emissions from existing fossil fuel-fired power plants.¹ The American Coalition for Clean Coal Electricity (ACCCE) is an organization that represents investor owned utilities, rural electric cooperatives, coal producers, railroads and manufacturers that are involved in providing affordable and reliable electricity from coal.

In short, EPA's proposal extends far beyond the agency's authority under the Clean Air Act, overrides the resource planning responsibilities of the Public Service Commission of Wisconsin (PSC), and will have a significant impact on the ability of Wisconsin to use coal as a low-cost electricity generation option. Wisconsin Governor Scott Walker recently asked the EPA to "... reconsider and reevaluate their approach" to regulating carbon under the Act.² ACCCE has urged the EPA to withdraw its proposal because of serious legal and policy flaws, a few of which are outlined briefly below.

Summary of EPA's Proposed 111(d) Guidelines

On June 2, 2014, EPA proposed guidelines for existing fossil fuel-fired power plants under section 111(d) of the Clean Air Act. In those guidelines,

EPA proposes to set a different state-wide CO₂ emission limit for fossil fuel-fired plants in each of 49 states. These limits are expressed in pounds of CO₂ per megawatt-hour of electricity generated (lbs CO₂/MWh). EPA bases these limits on each state's mix of electric generating sources and an assessment that assumes each state's ability to implement four "building blocks" of emission reduction measures:

- Improving the heat rate (efficiency) of each existing coal-fired unit by six percent;
- Increasing the utilization (capacity factor) of existing natural gas combined cycle power plants to 70 percent;
- Adding new renewable electricity generation in every state and preventing the retirement of nuclear capacity that EPA assumes might otherwise shut down; and
- Increasing end-use energy efficiency to reduce electricity use by 9 percent to 12 percent.

Under EPA's proposal, Wisconsin must achieve an emissions rate of 1,203 lbs CO₂/MWh in 2030, a 34 percent reduction below the state's 2012 emissions rate. EPA bases this proposed emissions rate on the following:

- Improving the efficiency each existing coal-fired unit by six percent;³
- Increasing electricity from natural gas by 79 percent;⁴
- Reducing electricity from coal by 25 percent;⁵
- Including existing nuclear capacity that EPA assumes is at risk of retiring;⁶
- Increasing electricity from renewable energy sources by almost 66 percent;⁷ and
- Reducing consumers' use of electricity by more than 12 percent.⁸

There Are Significant Legal Problems with EPA's Proposal

EPA's proposal has a number of significant legal problems. . First, EPA has no authority to regulate coal-fired power plants under section 111(d) of the Clean Air Act. Second, EPA has exceeded its authority by requiring

emissions reductions beyond what can be achieved at an individual power plant. These issues are discussed below.

The Clean Air Act does not allow EPA to regulate greenhouse gas emissions from existing coal-fired power plants under Section 111(d) because coal-fired power plants are already regulated by EPA under Section 112 of the Act. Specifically, the Clean Air Act forbids EPA from promulgating regulations under 111(d) for “any air pollutant . . . emitted from a source category which is regulated under section 7412.”⁹ EPA finalized such regulation of coal-fired power plants on February 16, 2012 when the Mercury and Air Toxics (MATS) rule was promulgated.¹⁰ Recently, Attorneys General from nine states filed an amicus brief to stop EPA’s proposal for this very reason, saying that the proposal “violates . . . the literal terms of the Clean Air Act.”¹¹ In addition, twelve states recently filed a petition in the D.C. Circuit to stop EPA’s proposal for the same reason.¹²

Even if EPA believes it has such basic authority under the Clean Air Act, EPA has proposed a rule that extends far beyond its limited legal authority. Section 111(d) provides EPA with the authority to set emissions standards based solely on emission reductions that can be achieved “inside the fence” at existing sources. However, this proposal requires substantial reductions “outside the fence,” a requirement that EPA is not allowed to adopt under Section 111(d). Last year, before the proposal was issued, Attorneys General from 17 states, including Wisconsin, warned EPA that the agency did not have authority to require emission reductions outside the fence.¹³

EPA’s Proposal Infringes on State Authority to Set Energy Policy

EPA’s proposal overrides each state’s prerogative to determine its own electricity policies. In setting emission rate limits, EPA has proposed to substitute its judgment for that of public service commissions, utilities, and grid operators in Wisconsin by presuming the appropriate amounts of electricity from coal, natural gas, nuclear, and renewables, as well as presuming how much electricity consumers in Wisconsin should use. As FERC Commissioner Tony Clark recently stated, “[B]y states voluntarily

agreeing to seek EPA approval of its overall integrated regulation of the electric industry, it will have entered into a comprehensive 'mother-may-I?' relationship with the EPA that has never before existed."¹⁴

EPA's overreach in this proposal is unprecedented under the Clean Air Act. In an attempt to blunt this criticism, EPA has asserted that states have flexibility to comply with their targets. Although EPA claims that states have flexibility, the magnitude of required emission reductions leaves most states little alternative but to follow EPA's mandate. In implementing the four building blocks, states will no longer be allowed to choose least-cost options to generate electricity. Rather, EPA is forcing states to adopt least-emissions approaches.

EPA's Proposal Contains Significant Technical Errors

EPA bases its proposal on flawed information and assumptions for its four building blocks that are the basis for each state's emissions target.

- *Building Block 1*: There are more than 1,300 coal fired units in the United States,¹⁵ but EPA presumes each unit can achieve the same six percent efficiency improvement. The opportunity to improve efficiency will vary significantly on a unit-by-unit basis, and may be very limited for most units. EPA has ignored many technical and economic factors that can limit potential heat rate improvements at coal-fired power plants including New Source Review (NSR) and the efficiency penalty associated with running coal-fired power plants less in favor of natural gas power plants.
- *Building Block 2*: EPA presumes that all natural gas combined cycle units can operate at a 70 percent capacity factor. However, EPA has ignored or downplayed the natural gas infrastructure challenges and limitations and the economic considerations that currently limit the capacity factors of existing combined cycle units.
- *Building Block 3*: EPA determined state renewable energy targets based on Renewable Portfolio Standards set by states in the region. The approach ignores the physical limitations of renewable resources

and assumes states in each region would take the same or similar legislative action to create such a program.

- *Building Block 4*: Each state is expected to reduce electricity consumption by approximately ten percent. EPA reaches this assumption by expecting end-use energy efficiency to improve by 1.5 percent each year. Again, EPA has failed to consider technical and economic constraints in using these aggressive assumptions.

ACCCE, in coordination with other organizations, is analyzing each of the four building blocks independently and will provide detailed information when the results become available.

EPA's Proposal Will Result in Significant Economic Impacts

EPA's proposal will result in unacceptable economic impacts. ACCCE sponsored extensive analysis of a proposal by the Natural Resources Defense Council (NRDC) that served as the blueprint for EPA's proposal. This analysis projected nationwide compliance costs up to \$17 billion per year and double digit electricity price increases in 29 states. Our analysis also shows as many as 2.5 million lost jobs over a 16-year period nationwide. Wisconsin could experience as much as 25 percent increase in electricity rates and the region that contains Wisconsin could lose up to 57,000 jobs per year. These economic impacts result from substantial increases in natural gas prices and the retirement of an additional 83,000 megawatts of coal-fired electric generating capacity across the country.

Retirements of coal-fired power plants due to environmental regulations, like EPA's proposed 111(d) guidelines, result in stranded costs. Some of the coal-fired power plants will be forced to retire before recently installed environmental control equipment, or other capital improvements at the plant, are fully paid for, stranding the costs of those improvements.

EPA's proposed regulations for modified and reconstructed coal-fired power plants are likely to increase the coal retirements that result from this rule because of New Source Review (NSR). Coal-fired power plants that are required to improve their efficiency because of this rule will likely

trigger NSR. Accordingly, the plants that trigger NSR will also have to meet a greenhouse gas standard at least as stringent as EPA's proposed modified and existing source rule, 1,900 lbs CO₂/MWh. This emissions rate is unachievable at most existing coal-fired power plants, and would be difficult to meet even for new coal-fired power plants. This CO₂ emissions rate, when applied to existing plants making efficiency improvements, will cause many of them to retire prematurely, increasing the stranded costs associated with the 111(d) guidelines.

Other analyses of EPA's 111(d) proposed guidelines have shown similar results. The Center for Strategic and International Studies recently released a partial analysis of EPA's proposal. The analysis projected annual costs of up to \$32 billion.¹⁶

ACCCE is currently analyzing EPA's proposed guidelines and will provide detailed information when the results of the analysis become available.

EPA's Proposal Will Have no Impact on Climate Change

Despite enormous costs, the proposal will have no meaningful effect on global climate change because the proposal will reduce global greenhouse gas emissions by less than 1 percent. Using EPA's own scientific assessments, the emission reductions from this proposal will result in:

- A meaningless 1 percent reduction in atmospheric CO₂ concentrations;
- An insignificant reduction in global average temperature of 0.016°F; and
- A trivial reduction in sea level rise of 1/100th of an inch, which is the thickness of three sheets of paper.¹⁷

Conclusion

EPA's proposal has profound legal and technical flaws and, therefore, should be withdrawn. Although it has significant economic impacts, the proposed guidelines will have no meaningful effect on global climate

change. We look forward to sharing the results of our analysis within the coming weeks.

Sincerely,

/s/

Paul Bailey

Senior Vice President, Federal Affairs and Policy

¹ *Standards of Performance for Greenhouse Gas Emissions from Existing Sources: Electric Utility Generating Units*, 79 FR 34829, (June 18, 2014).

² Letter from Scott Walker to Gina McCarthy (August 6, 2014).

³ EPA, *GHG Abatement Measures* technical support document, June 2014. EPA assumes the heat rate of every coal-fired electric generating unit can be improved by 6 percent.

⁴ EPA, *Technical Support Document (TSD) for the CAA Section 111(d) Emission Guidelines for Existing Power Plants: Goal Computation Technical Support Document*, June 2014, Appendix 1.

⁵ *Ibid.*

⁶ EPA, *GHG Abatement Measures* technical support document, June 2014. EPA assumes that approximately 6 percent of nationwide nuclear generating capacity is at risk of retirement based on EIA's projection in AEO 2014. Therefore, EPA includes electricity generation from 6 percent of each state's nuclear capacity in deriving CO2 emission rates for 30 states with nuclear plants.

⁷ EPA, *Technical Support Document (TSD) for the CAA Section 111(d) Emission Guidelines for Existing Power Plants: GHG Abatement Measures*, June 2014, Table 4.9.

⁸ EPA, *Regulatory Impact Analysis for the Proposed Carbon Pollution Guidelines for Existing Power Plants and Emission Standards for Modified and Reconstructed Power Plants*, June 2014, Table 3.3.

⁹ 42 U.S.C 7411(d)(1)(A)(i) (Clean Air Act 111(d)(1)(A)(i))

¹⁰ *National Emissions Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units; Final Rule*, 77 F.R. 9304, (Feb. 16, 2012).

¹¹ *Brief of the States of West Virginia, Alabama, Alaska, Kentucky, Nebraska, Ohio, Oklahoma, South Carolina and Wyoming as Amici Curiae in Support of the Petitioners, In Re: Murray Energy Corporation*, D.C. Circuit, (filed June 25, 2014).

¹² *State of West Virginia, et.al. v. United States Environmental Protection Agency*, D.C. Circuit, (filed August 1, 2014).

¹³ *Perspective of 18 States on Greenhouse Gas Emissions Performance Standards for Existing Sources under § 111(d) of the Clean Air Act* (Sept. 11, 2013).

¹⁴ *Written Testimony of Commissioner Tony Clark, Federal Energy Regulatory Commission Before the Committee on Energy and Commerce, Subcommittee on Energy and Power, United States House of Representatives Hearing on FERC Perspective: Questions Concerning EPA's Proposed Clean Power Plan and other Grid Reliability Challenges*, (July 29, 2014).

¹⁵ Energy Information Administration, *Today in Energy*, (Feb. 2014) (total is from year-end 2012).

¹⁶ Center for Strategic and International Studies, *Remaking American Power: Preliminary Analysis* (July 24, 2014).

¹⁷ ACCCE, *Climate Effects of EPA's Proposed Carbon Regulations*, (June 2014).