I. **ERCC Background & General Concerns**

These comments are filed on behalf of the Electric Reliability Coordinating Council ("ERCC"), a group of power-generating companies serving millions of businesses and households across the United States, and dedicated to a balanced energy portfolio that ensures reliable and affordable electric power, an essential prerequisite for the protection of the environment, public health, and the economy. The comments deal with the standards proposed to address carbon dioxide (CO$_2$) emissions from existing power plants, also known as the Clean Power Plan ("CPP"). 79 FR 34829 (2014).

As an initial matter, the CPP as currently proposed is illegal.

- EPA’s Mercury and Air Toxics Standards ("MATS"), issued under Section 112 of the Clean Air Act ("CAA"), pre-empt the Agency’s authority to promulgate the CPP. Section 111(d) of the CAA explicitly stipulates that EPA cannot regulate a “source category” that is already regulated under Section 112. Existing power plants are that source category. We would note that despite vigorous protestations from the Agency, this very preemption argument is headed for a merits panel review before the U.S. Court of Appeals for the District of Columbia despite the status of the rule as a proposal. See *In re Murray Energy Corp.*, D.C. Cir., No. 14-1112 (2014). Now would be a good time for the Agency to withdraw the proposal before more time and resources may be wasted.

- Three out of the four “Building Blocks” that EPA used to set States’ emissions targets in the CPP are illegal, because their implementation falls outside the geographic boundaries of the power plant. They are: increased dispatch of natural gas electricity, increased investment in renewable energy, and expanded energy efficiency programs. Section 111(d) authorizes EPA to set an emissions standard at the “source,” not to re-organize the entire U.S. electricity sector in the
name of reducing CO₂. Furthermore, it is outside the decisional ambit of power plant owners to guarantee the success of any of these Statewide programs. EPA’s interpretation of Section 111(d) is nothing less than the creation of a roving federal mandate that usurps the authority of state legislatures, environmental and energy regulators, and the system of regional transmission operators and other system operators that helps to ensure reliable electricity in the United States. For more discussion of this highly disruptive legal theory in practice, see Attachment 7.

- The CAA requires that EPA finalize a rule for new sources before the Agency promulgates a rule for existing sources. A rule for new sources has not been finalized; ergo, the requirements of the statute have not been met. Furthermore, EPA seeks to finalize its rule for modified & reconstructed sources to bypass this requirement, without acknowledging that modified & reconstructed sources only comprise a subset of the broader category of new sources. The Agency must finalize a rule for all new sources before utilizing Section 111(d).

- If EPA finds that a State’s 111(d) Plan is unsatisfactory, the CAA requires that EPA implement its own Federal 111(d) Plan. Because of the broad Statewide measures envisioned by the CPP, EPA would then be administrating a number of activities for which it lacks both authority and requisite expertise. For instance, EPA has no business delving into the management of electricity dispatch or renewable energy investments. In this sense, the CPP sets the stage for cascading legal and economic disasters. For additional discussion by several States’ attorneys general on the potential for a veritable crisis of federalism as a result of the CPP, see Attachment 1.

- ERCC further agrees with the comments of 17 state attorneys general (State of Oklahoma et al) filed in this docket regarding a further legal infirmity based upon accepted doctrines of federalism. Specifically, the attorneys general at page 22 et seq. point to the jurisprudence of the Federal Power Act (“FPA”). They state, in part, “The question of what role the federal government and its agencies should play in developing energy policy throughout the country has been considered extensively under the Federal Power Act, Congress’s definitive pronouncement on the subject. And while Congress unquestionably did not intend Section 111 as an energy-policy provision at all, assuming arguendo that it were capable of being construed to touch on energy policy issues in some meaningful way, such as what type of resources may be used to generate electricity in different states, how state and regional power grids should
dispatch power, retail energy-efficiency measures, and the like, then EPA's Section 111(d) proposal directly contravenes Congress's careful decision in the Federal Power Act to preempt only certain aspects of power generation."

The administrative process by which the CPP was drafted and released has been problematic since day one. First, EPA continues to refuse to release critical modeling runs on the grounds that the assumptions contained therein are proprietary. Without complete information, however, it is impossible to test the veracity of the Agency's claims about the feasibility of the CPP. Second, EPA did not extend the public comment period for the CPP after releasing a Notice of Data Availability ("NODA") that contained new information critical to a thorough evaluation of the rule. Specifically, EPA made two additional years of data available that the Agency intends to use in formulating the baseline for energy demand in all fifty States. This new information required stakeholders to completely re-structure their modeling efforts, with no extra time. We would remind the Agency that an "adequate" comment period is required, not only for the proposal but for the NODA as well – particularly when its impact is so significant. The NODA purports to restate the glide path for implementation. Even later, the EPA placed a substantive interpretation of the process for calculating the mass-based approach for demonstrating compliance. Both of these efforts required adequate time to comment; neither received it. See e.g., Fla. Power & Light Co. v. U.S., 846 F.2d 765, 772 (D.C. Cir. 1988).

II. Reliability

The CPP puts the reliability of the U.S. electricity supply at risk. In fact, a growing chorus of independent experts have expressed their concern for the future of America's affordable, dependable electricity supply were the CPP to take effect.

- The National Electrical Reliability Corporation ("NERC") has stated that "Essential Reliability Services may be strained by the proposed CPP" ans called for substantial additional analysis.¹
- The Midwest Intercontinental System Operator ("MISO") has stated that the CPP will likely result in "significant reliability violations."² See Attachment 5 for MISO's detailed analysis on how the CPP will result in an additional 14 GW of early coal plant retirements in the Midwest.

² "Transmission Reliability Impacts due to the proposed EPA regulations: A Preliminary Assessment." MISO. November 12, 2014.
• The chief economist for PJM has stated that the sheer breadth of the CPP's mandate "makes it impossible for us to understand what we could be facing." See Attachment 6 for PJM's detailed analysis on how the CPP will require a major overhaul in the region's transmission system.

• The Electric Reliability Council of Texas ("ERCOT") has said that the CPP "is likely to lead to reduced grid reliability." Texas Public Utility Commissioner Kenneth Anderson's testimony to this point is available in Attachment 3.

• The Southwest Power Pool ("SPP") "anticipates that there will be significant reliability impacts as a result of compliance."5

Because every independent non-partisan analysis by system operators agrees that the CPP may threaten electric reliability, EPA should take these warnings seriously and reconsider its proposed rule. For the ERCC's own comprehensive analysis on the reliability implications of the CPP, with particular troubling implications for RTO/ISO markets, see Attachment 7.

Putting electric reliability at risk entails serious legal and public policy consequences. Electrical outages endanger economic growth, and have a demonstrable negative effect on public health. In a letter to EPA Administrator Gina McCarthy, health care professionals who also serve as Members of Congress expressed their shared view that "the public health consequences associated with stable electricity cannot be overstated." In particular, the letter refers to the importance of a reliable electricity supply to moderate the impacts of unemployment, disease, extreme weather, and food safety, among other benefits. Putting these public benefits at risk is undesirable and wrong, especially when the alleged benefits associated with the CPP are tenuous and unverifiable.

EPA needs to carefully consider the consequences of polices that may not allow for a flexible and reliable supply of electricity, because the impacts of reliability problems can be devastating. The downside impacts of reduced electric reliability are substantial and must be taken into account in any responsible analysis of the proposed rule. As ISO New England has stated:

"A reliable supply of electricity is a foundation of our prosperity and quality of life. Without it, our world literally grinds to a halt—businesses cannot plan and operate productively, hospitals and schools cannot provide their essential services, and residents cannot depend on the electricity they need simply to live their daily lives. Without reliable electricity, the financial and societal costs would be enormous."\(^7\)

The Institute of Electrical and Electronics Engineers of the U.S. (IEE-USA) has further observed that even minor disruptions in the electric power grid can sometimes lead to catastrophic ‘cascading’ blackouts, and that the loss of a single generator can result in an imbalance between load and generation. The resulting blackouts cause incalculable economic damage. For example, the direct costs to high-technology manufacturing in the San Francisco Bay Area alone during the California blackouts alone ran as high as one million dollars a minute due to lost production, and the relatively brief Northeast blackout of 2003 cost business about $13 billion in lost productivity.\(^8\)

Last winter, the cold weather phenomenon known as the “polar vortex” made it clear that coal-fired generation, much of which is currently scheduled to be retired as a result of EPA rules, is vital to the reliability of our electricity supply. In some areas, coal-fired plants thought to be obsolete were discovered to be essential to reliability, and one of the nation’s largest electricity generators reported that 89 percent of the coal-fired generation slated for retirement by 2015 as a result of EPA rules was needed to supply electricity during the cold weather. These events were not isolated, as electricity generators in Texas and the Southeast faced extreme demands and had to take measures to ensure that coal-fired generation was available, even as those plants faced retirement in the coming years.

The potential legal outcomes associated with reliability disruptions are also severe. Under the FPA, the Chair of the Federal Energy Regulatory Commission (“FERC”) and the Secretary of Energy are empowered to mandate emergency power plant operations to guarantee a consistent, reliable power supply. In fact, FERC Chair Cheryl LaFleur has recently stated in regards to the CPP, “Reliability is not an option, the lights are going to stay on...”\(^9\) On the other hand, States’ 111(d) Plans under the CPP will be federally enforceable via citizen suits. Power plant owners might be trapped between lawsuits and federal enforcement actions, all because EPA neglected to adequately consider the implications of the


CPP on our nation’s electricity supply. See Attachment 2 for a detailed discussion on reliability by the U.S. Government Accountability Office, as well as several FERC Commissioners.

III. Cost

The CPP will impose tremendous costs on the U.S. economy and the American people.\(^9\) Analysis by NERA Economic Consulting anticipates the CPP will result in an additional 45 gigawatts of coal plant retirements between 2017 and 2030, resulting in an average nationwide electricity rate hike of 12 percent.\(^1\) EPA’s own analysis concedes that rate hikes in the range of 6 to 7 percent by 2020 are likely, assuming all the component parts of the CPP are feasible in all instances. The Agency also left several important cost inputs out of its modeling efforts, including the cost of new electricity and gas transmission projects that will be required to satisfy the requirements of the CPP. All told, both EPA and NERA’s estimates of the probable cost-impacts of the CPP are conservative.

Whereas NERA and EPA assumed in their respective calculations that the individual components of the CPP were workable and attainable, there is significant reason to believe that is not the case. In fact, independent experts have suggested that EPA made serious errors in its methodology for calculating States’ emissions targets. For instance, it seems EPA may have overestimated the degree of heat rate efficiency improvements achievable at power plants by as much as a factor of three. The Agency also made optimistic projections about the feasibility of increased natural gas use, without any allowance in terms of time or rate for the construction of additional pipeline capacity. EPA failed to include the need for excess natural gas capacity to fill-in for intermittent renewable energy resources, even though it is empirically proven that wind and solar generation creates significant peaks and troughs in generation capacity every single day. Finally, EPA made across-the-board assumptions about the future of energy efficiency based entirely on past achievements and not at all on the feasibility of future realizations. Each one of these missteps is a reason to be skeptical about the feasibility of States meeting their emissions targets within the CPP’s stringent timetable at less than a truly astronomical cost.

\(^9\) The failure to adequately estimate plant closures and consequent unemployment may also jeopardize the legal position of the Agency. EPA is currently being sued in federal district court for its failure to implement Section 321 of the Act requiring the Agency to evaluate the job impacts of its rules. Murray Energy Corp. v. McCarthy, N.D. W.Va., No. 5:14-cv-00039-JPB, 10/24/14.

\(^1\) The full text of NERA’s report is available in Attachment 4.
Higher energy prices will produce a ripple effect throughout the U.S. economy that will shutter businesses, deter hiring, cause layoffs, increase the price of essential goods and services, and increase the cost-of-living for all Americans. People living on fixed incomes, like senior citizens and the poor, will be hardest hit by rate hikes. Price hikes will also leave these already-vulnerable groups less able to cope with the considerable human costs of lower economic growth. Studies have shown that unemployment, and economic malaise more generally, take an appreciable toll on the health and well-being of Americans by increasing the likelihood of hospital visits and illnesses, raising healthcare costs, and putting stress on families.12 Any one of these factors is reason enough for EPA to reconsider the spurious notion that CO₂ has any relationship to individuals' well-being, when the Agency has done no analysis to show that is indeed the case.13 Additional discussion on the cost impact of the CPP on American households, authored by energy expert Eugene Trisko on behalf of the United Mine Workers, is available in Attachment 3.

EPA has suggested that regional approaches to implementation can help the proposed rule to gain certain economies of scale that can assist with moderating the cost of rule. As we discuss at greater length in our report at Attachment 7, the CPP specifically mentions the Middle Atlantic Regional Greenhouse Gas Initiative (RGGI) as well as the California cap and trade program. Of course, these existing cap and trade programs are voluntary. But the way the proposed CPP is constructed, emission limitations must be met and enforced at the state level. It remains to be seen whether it would be possible for States to satisfy the proposed rules as written through a regional cap and trade program which simply prices carbon emissions through tradable allowances and is based on a single regional cap.

12 Higher prices will disproportionately impact vulnerable individuals. In a recent study on Public Opinion on Poverty, it was reported that one-quarter of Americans report having problems paying for several basic necessities. In this study, currently 23% have difficulty in paying their utilities—that is, one out of four Americans.” The American Clean Energy and Security Act of 2009, 111th Cong. (April 23, 2009) (testimony of Darryl Bassett at 5). Further, African-American and Hispanic families will spend almost twice the amount of after-tax income on energy compared to the average and when viewed as a percentage of total household income. New Study Confirms Rising Energy Costs Disproportionately Impacting Minority Households, Reuters, Jul. 25, 2008, available at http://www.reuters.com/article/2008/07/25/idUS178012+25-Jul-2008+PRN20080725 (accessed June 22, 2012). Likewise, elderly households use less per capita energy but still “spend a higher share of their income on energy-related expenditures.” Janemarie Mulvey, Impact of rising energy costs on older Americans, CRS Report for Congress No. RS22826 (Mar. 4, 2008), at 3.

13 ERCC believes the reliance of EPA on the social cost of carbon (SCC) methodology is in error. It is our understanding that expert review of the SCC methodology was provided in the UARG comments. See Dr. Anne E. Smith, Uncertainties in Estimating a Social Cost of Carbon Using Climate Change Integrated Assessment Models, Feb. 26, 2014. Smith found that the SCC development process was closed and non-transparent; that the process deviated from OMB guidelines; that its modeling assumptions did not undergo peer review or public comment; that SCC does not account for threshold effects or nonlinear changes; and was subject to many other flaws. In short, SCC cannot be a basis for framing the analysis of benefits associated with rule.
Thus, one of the ways to price carbon would require some states to take a regional approach even if it was not in their customers interests to do so. The proposed CPP requires states to ensure compliance through self-executing laws or regulations which will require mandatory enforcement mechanisms not part of voluntary programs. Such changes are not only inconsistent with today’s regional regimes but run counter to EPA’s claims regarding state flexibility and potentially even the interstate compact clause of the U.S. Constitution.

IV. Questionable Benefits

The CPP will not decrease (and may potentially increase) global CO$_2$ emissions, resulting in zero beneficial changes to Earth's climate. EPA believes the CPP will reduce CO$_2$ emissions from the U.S. electricity sector 30 percent below 2005 levels by 2030. Because the U.S. electricity sector makes up a fraction of U.S. emissions, and because the U.S. accounts for a mere fraction of global emissions, the CPP will reduce the global rate of CO$_2$ emissions by less than 2 percent in the best case scenario. In the meantime, China’s emissions rate is expected to increase by a greater amount than that every year between now and 2030, dwarfing any miniscule reductions achieved in the U.S. Additional discussion on this point by Indiana Department of Environmental Management Commissioner Tom Easterly is available in Attachment 3.

EPA concedes the CPP’s effect on climate change will be negligible. When asked by Members of Congress what impact the CPP will have on global temperatures, EPA Administrator Gina McCarthy said, “...the impacts of any single action will be small.” Unfortunately, the one big impact the CPP might have is making the cost of doing business in the U.S. so high that companies move their operations overseas to countries with fewer environmental regulations than the U.S. In the aggregate, the net effect will be to increase global CO$_2$ emissions. EPA does no analysis to account for potential economic

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14 “China.” U.S. Energy Information Administration. February 4, 2014. Further, carbon emissions will jump 34 percent in India by 2020 and double by 2030 under its existing policies, according to the International Energy Agency. Bloomberg report, Nov. 30, 2014. See also, Washington Post, Nov. 12, 2014 (expressing view of critics that recent US-China deal imposes few restrictions on China; also noting, “China completes a new coal plant every eight to 10 days, and while its economic growth has slowed, it is still expanding at a brisk rate of over 7 percent.”).

15 Testimony before the House Committee on Science, Space and Technology, September 17, 2014. Also, EPA Air Administrator Janet McCabe testified before the House Energy & Commerce Committee last June that “you can’t predict the impact” the CPP will have on climate change-related outcomes. In 2013, Gina McCarthy testified before the House Energy & Power Subcommittee that “it’s unlikely...any specific one step is going to be seen as having a visible impact on any of those [climate change] impacts.”
"leakage" that may occur as a result of the CPP. As a result, the Agency's assessment of the CPP's effect on emissions is incomplete and hopelessly optimistic.

There is substantial evidence that the rule if finalized is likely to cause substantial leakage. As noted, increasing energy costs in the United States motivates closure of manufacturing assets and their transfer overseas. As a recent report from the Maguire Energy Institute at the Southern Methodist University put it:

"Numerous studies find that regulatory burdens of this sort imposed on energy prices and energy supply cause plant closures and maximize the potential that manufacturing jobs will move overseas. For each manufacturing job lost, many other dependent jobs will also exit the economy. One in eight private sector jobs rely upon our manufacturing base."\(^{16}\)

Beyond economic impact, such "leakage" has a direct effect on whether climate policy actually produces benefits. The International Energy Agency has observed that such leakage can result in "the increase in emissions outside a region as a direct result of the policy to cap emission in this region. Carbon leakage means that the domestic climate mitigation policy is less effective and more costly in containing emission levels, a legitimate concern for policy-makers."\(^{17}\)

Aside from the indirect effect of CO\(_2\) on global climate, there is no relationship between reduced emissions and improvements in human health. Thus, in order to bolster the case for the CPP, EPA has claimed that co-benefits will accrue to implementation of the proposed rule in the form of reduced emissions of particulate matter (PM). The reason for this is simple; when you shut down a power plant, it no longer has emissions of any kind. However, the CAA does not authorize EPA to deliberately seek the shutdown of as many power plants as possible. Instead, EPA is double-counting the benefits of reducing particulates governed by other environmental regulations and counting those reductions as benefits of the CPP. Not only does this technique result in skewed cost-benefit assessments, it also rigs the system to impose unnecessary costs on the American people with no improvement to the safety of the public. If EPA is going to regulate carbon emissions, EPA should calculate the benefits of reduced carbon and not use the CPP as a catch-all for its desired air quality scheme.

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EPA in this rule is again captivated by co-benefits that derive from reductions in PM below levels the Agency has determined to be fully protective of human health. However, the Agency refuses to attempt to balance these speculative conclusions against the very-real impacts on human health that arise from economic limitations imposed by the proposal. From a commercial perspective, higher electricity prices will be largely borne by companies in energy-intensive manufacturing, where higher prices will make it more difficult to expand operations and increase employment. These productive industries result in millions of direct and indirect jobs. Placing unnecessary economic constraints on the U.S. economy, in a time of recession, is unwise and detrimental to sound public health policy as, based on decades of research, continuously-employed individuals experienced, on average, an additional life expectancy of four to five years.\(^{18}\) Comparably, the direct effect of reducing unemployment has been estimated to prevent up to 2,500 premature deaths a year.\(^{19}\) In contrast, additional unemployment may significantly harm public health. A report to Congress' Joint Economic Committee by Dr. Harvey Brenner showed the impacts of unemployment on public health. Brenner found that a one percent increase in the unemployment rate was associated with a two percent increase in premature deaths. In 2004, Brenner used his econometric models to estimate the public health results from reducing coal-generated electricity. For example, with a substantive reduction in coal-fired power, Brenner found the result would be between 170,000 and 300,000 premature deaths.\(^{20}\)

Placing EPA regulations in a broader public health perspective, it is clear that the proposed rule is not among the wisest of societal investments in addressing premature mortality. President Obama himself has recognized the need to keep cost-effectiveness in mind when he ordered EPA to protect public health and the environment "while promoting economic growth, innovation, competitiveness, and job creation."\(^{21}\) Failure to allocate resources based on cost-effectiveness quite literally costs lives. Experts at the Harvard School for Public Health have estimated that expensive environmental rules save 100 times fewer lives than when the federal government redeployed those assets to address higher risks.\(^{22}\)

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tremendous differential in health impacts explains why EPA should not be so cavalier in its benefits analysis.

The office that is charged with conducting an independent cost-benefit analysis of EPA's rules, as per Executive Order 12866, is the White House Office of Management and Budget ("OMB"). Unfortunately, OMB Director Shaun Donovan has spoken publicly in support of the CPP, before the rule is even finalized or reaches his desk for formal review. It seems the Administration is determined to obfuscate and talk past the real world consequences of the CPP, at the cost of American businesses and their customers' well-being. We urge EPA to reconsider imposing such a costly, ineffective regulatory burden on the U.S. electricity system in favor of a more legally defensible, workable approach.

V. Conclusion

The ERCC is pleased to offer these comments. We do not dispute the obligation of EPA to develop and implement sensible, effective regulations. Indeed, we have many times offered to work closely with the Agency on effectively discharging that obligation. However, the current rule is based upon a hurried administrative process and flawed interpretations of statute. Because of its expansive design, crafted without regard to costs, and its unrealistic assumptions about the workings of the U.S. electricity sector, the CPP will maximize costs, suppress economic growth, and undermine reliability. We respectfully ask that the Agency withdraw the CPP. In the absence of withdrawal, we ask that EPA remove the draconian 2020 interim deadlines for compliance that will inflict serious harm on States and the American people in the short-term.

Sincerely,

Scott H. Segal, Director
Electric Reliability Coordinating Council

23 "The Cost of Climate Inaction." Center for American Progress. September 19, 2014. In yet another potential legal infirmity to the rulemaking process regarding the CPP, eight members of Congress wrote to Director Donovan suggesting that his remarks constitute a basis for recusal from review of the rule.