

Issue Brief: Final ACE Rule Raises State Concerns

July 2, 2019

Overview

On June 19, 2019, the Trump Administration released the Affordable Clean Energy Rule (ACE), a final regulation that repeals and replaces the Obama Administrations Clean Power Plan (CPP). The ACE rule includes three actions:

1. Repeal of the CPP;
2. Finalization of emission guidelines defining the best system of emission reduction (BSER) as a menu of heat rate improvement (HRI) measures at coal-fired power electric generating units (EGUs) for states to consider at each unit in establishing standards of performance for carbon dioxide (CO₂) emissions; and
3. Finalization of revised regulations for this, ongoing, and future actions under Clean Air Act (CAA) Section 111(d) that provide direction to EPA and states on the development and implementation of emission guidelines.

Fourteen states submitted [Joint Comments](#) opposing the CPP replacement in October 2018.

Consistent with the concerns raised in the Joint Comments, the ACE Rule continues to represent a rule that will not achieve the needed emission reductions to mitigate the impacts from climate change that communities are already experiencing and fails to support states' efforts to address climate change. The ACE Rule is inconsistent with the obligations of EPA under the CAA, and it curtails EPA's authority to regulate greenhouse gases (GHGs) under 111(d). The ACE Rule also ignores the nature of the electric grid and the system that power companies and states have been broadly deploying to reduce GHGs and other power plant emissions. As a result, the ACE Rule will secure minimal emission reductions or, very possibly, result in emission *increases* relative to having no federal program.

The ACE Rule reflects a broader effort by the Trump Administration to curtail EPA's authority to regulate GHGs under 111(d) and potentially other authorities. Throughout the ACE Rule, EPA uses legal strategies and interpretations of the CAA to constrain the tools and flexibility that could be used by states and a future EPA. In addition, EPA's Regulatory Impact Analysis (RIA) for the ACE Rule uses methodologies and definitions intended to shrink the benefits and co-benefits that could be used to justify GHG regulations. Thus, the stakes will be high with upcoming litigation over the ACE Rule, as the outcome of this litigation could affect how the CAA Section 111 can be used in the future to effectively address climate change.

Key Takeaways

CPP Repeal: The ACE Rule repeals the CPP based on a *Chevron* step 1 analysis stating that the “text of the CAA is inconsistent with that interpretation [underlying the CPP], and the context, structure, and legislative history confirm that the statutory interpretation underlying the CPP was not a permissible construction of the Act.” EPA also argues that “the major question doctrine” prohibits it from issuing a rule with consequences as significant as the CPP without express Congressional authorization. If a court were to agree with EPA that the language of the statute does not allow for a system of emissions reduction that involves trading or averaging across sources, litigants would argue that such a decision should constrain a different Administration from interpreting CAA Section 111 more broadly to allow more flexibility in what constitutes a “system of emission reduction.” Similarly, litigants may argue that a future EPA should be constrained from allowing flexibility, such as trading or averaging, for compliance with Section 111 standards of performance.

BSER: The ACE Rule retains the proposed approach of identifying BSER for existing coal-fired electric generating units (EGUs) as a menu of heat rate improvement (HRI) measures, which EPA indicates would not be available at all plants. Additionally, while the Joint Comments had urged EPA to consider emissions from natural gas combined cycle EGUs, the final Ace Rule only applies to coal-fired EGUs.

The Joint Comments noted that EPA’s regulations must be more than an “informational pamphlet” for states. EPA argues in the ACE Rule that by providing the range of emission percent reductions achievable using each of the candidate technologies, it is fulfilling its responsibility as part of the BSER determination. However, in the end, EPA is still only including the list of HRI measures with a range of percent emission reductions and costs. Some states and stakeholders will likely argue that the ACE Rule fails to meet EPA’s obligation under Section 111 of the CAA to mitigate pollution that the Agency finds endangers public health and welfare by ensuring that state standards of performance reflect the emission reductions achievable using the best system of emission reduction.

Critics of EPA’s approach to BSER will note that EPA did not provide a full examination of systems of emission reduction that have the potential deliver significant emission reductions, such as co-firing and carbon capture and sequestration (CCS), that would fit within the Agency’s new legal interpretation of a “system of emission reduction.” Additionally, the Final Rule ignores the primary methods deployed by states and power companies to meaningfully reduce GHG and other emissions from existing power plants. The Joint Comments, as well as comments by others, made clear to EPA that electricity providers shift generation among affected units and to zero-emitting sources as a means of achieving emission reductions because such strategies align with the structure of the power grid and can achieve reductions more cost-effectively than relying on control technologies alone. Such strategies are consistent with industry practice and have already led to a system-wide decrease in emissions of criteria air pollutants and CO₂. EPA, however, argues that “standard of performance” must reflect the *application* of the best system of emission reduction, which EPA argues can only be done at or to a specific site. EPA argues that the CPP conflated *implementation* with *application*. (Of note, for the CPP, EPA had also expressly found that the CPP’s BSER could be applied to the regulated sources.) States and other stakeholders will argue that the ACE Rule fails to identify the “best” system and unlawfully

interprets the statute in a way that prevents, rather than enables, the Agency to fulfill its statutory obligation to mitigate air pollution considering cost and energy requirements.

Role of EPA and States: Consistent with the proposed ACE Rule, states are required to conduct “unit-specific evaluations of HRI potential, technical feasibility, and applicability,” including cost. States may also consider remaining useful life and other factors to establish less stringent standards of performance than could otherwise be derived from application of the BSER. This approach creates a significant administrative and resource burden for states. It forces states to evaluate HRI measures and potentially to set standards of performance that could lead to emission increases at specific units. The ACE Rule does not include a model rule or other support for the states’ development of Section 111(d) plans.

The Joint Comments argued that EPA’s approach will not achieve meaningful emission reductions, and the limited reductions it may achieve could easily be eroded or overwhelmed by emissions increases. These emissions increases could be due to increased dispatch in certain situations (i.e., the “rebound effect”) or to extending the lifetime operations of EGU’s through efficiency investments and improvements. EPA’s Regulatory Impact Analysis (RIA) for the final ACE Rule includes scenarios that project emission increases in some states. The discussion in the RIA regarding the need for NSR changes to make some HRI measures less expensive (because they lead to overall emission increases and, without NSR regulatory changes, would require emission control technology improvements) explicitly recognizes that some units will see an *increase* in overall emissions as these units generate more due to HRI investments. In one scenario illustrated in the Appendix to this Issue Brief, EPA’s RIA projects that in 2035 under the ACE Rule, 21 states would see emission *increases* compared to the CPP scenario in 2035.¹ States and other stakeholders will likely argue that a unit-specific “best system of emission reduction” cannot lead to emission increases at some units and satisfy the statute.

Additionally, the ACE Rule will likely lead to significant litigation over every state plan and unit-specific determination—creating regulatory uncertainty for the sector and distracting states and stakeholders from investments in clean energy and emission reductions. The rule also fails to set a common baseline for environmental performance across the country as it only includes a range of percent emission reductions for a menu of heat rate technologies, while also allowing states to adopt less stringent standards. As the Joint Comments noted, Section 111 of the CAA is designed to prevent a race to the bottom, yet the ACE Rule structure is likely to lead to just that.

One new issue is that the rule strongly suggests EPA will *disapprove* a state plan that includes more stringent requirements than EPA’s BSER. EPA notes it is not prejudging the approvability of a state plan that establishes standards of performance that are more stringent than those that would result from the application of the BSER finalized by EPA. However, EPA states that “there are clear principles and limitations imposed by CAA Section 111(d) that will apply to the EPA’s review of any state plan.” Thus, while EPA has not made a final decision, the preamble makes clear that a state with a program that will achieve greater emission reductions would still have to set standards of performance for any coal-fired

¹ States that see an increase in emissions compared to the CPP include: AZ, AR, CA, CO, CT, FL, GA, ID, IN, IA, KS, MI, MN, MO, MT, NE, NJ, ND, RI, and WI.

power plants operating in its state based on the set of technologies EPA has identified as fitting within its new, unit-specific interpretation of BSER (e.g., heat rate improvements, co-firing, or CCS). As a result, EPA's definition of BSER would preclude states from using the Regional Greenhouse Gas Initiative (RGGI), the Western Climate Initiative (WCI), or a single state market-based GHG reduction policy to comply with the standard.

Compliance Flexibility: The ACE Rule prohibits state plans from allowing averaging or trading among units at a facility or between separate facilities for compliance purposes because this is not permissible under EPA's interpretation of CAA Section 111. The rule also makes clear that state plans must have enforceable emission rates and cannot include mass-based compliance. Thus, the ACE Rule prohibits state plans from using mass-based programs to comply with Section 111 even if such programs will achieve greater emission reductions at lower costs.

Implementation Timing: Consistent with the proposed ACE Rule, the final implementing regulations modify state and EPA timelines for plan submission and review. State plans will be due three years from publication of the rule in the Federal Register notice. EPA will have six months to determine completeness and then one year to determine whether to approve the submitted plan. If a state plan is not submitted or approved, EPA will have two years to promulgate a Federal Implementation Plan (FIP). Thus, it could take up to 6.5 years from after the publication of the ACE Rule in the Federal Register to finalize a plan under CAA Section 111(d) (compared to 15 months under current timelines). The Joint Comments explained that EPA already has sufficient discretion to provide states and affected sources additional time when appropriate, and the additional time would only delay the critical reductions that are needed to address climate change and other harmful air pollution. EPA argues, however, that this additional time is needed and is consistent with the CAA Section 110 state implementation plan process. EPA does not examine the environmental or health impacts of this extended timeline.

New Source Review (NSR): The ACE Rule does not include any changes to the NSR program, which had been part of the proposal. However, EPA indicates that it intends to take action on its proposed NSR reforms in a separate rulemaking.

Emissions Implications: Unlike the RIA for the proposed ACE Rule, which had the CPP in the base case, the RIA for the Final Rule compares an illustrative policy scenario to a base case that does not include the CPP. To model the illustrative policy scenario, EPA made assumptions about the potential for efficiency improvements and associated costs for each category of power plants and modeled the impacts of imposing the assumed measures. The RIA projects that CO₂, sulfur dioxide (SO₂), and nitrogen oxide (NO_x) emissions will be less than one percent lower under the illustrative policy scenario than under the base case.

Similarly, EPA finds that the ACE Rule decreases coal production for power sector use by one percent by 2030 relative to the base case, and decreases natural gas use for electricity generation by 0.3 percent by 2030. The estimated compliance costs for 2030 are \$280 million (2016\$) in 2030 relative to the non-CPP baseline. EPA estimates retail electricity price impacts are 0.1 percent in 2030.

Thus, the modeling by EPA does not show significant differences between its base case and policy scenarios. This is due to several factors, including that the power sector has already reduced emissions below what would have been required by the CPP, and EPA's new modeling reflects these updates. Based on other modeling runs, EPA argues that the CPP is now indistinguishable from a business-as-usual scenario. However, these runs involve modeling assumptions including a three-year delay in CPP implementation and nationwide trading that artificially reduce the reductions the CPP would deliver. EPA also fails to consider energy efficiency as a compliance mechanism.

EPA also provides a separate analysis of the impacts of the repeal of CPP and evaluates the projected impacts of the CPP on emissions under additional cases, including one that is comparable to the CPP scenarios run under the final CPP. Under this CPP case, EPA finds that there would be CO₂ emissions reductions of 3.5 percent relative to the baseline in 2030. This level of emission reductions exceeds the emission reductions of the illustrative ACE Rule policy scenario.

Benefits: EPA estimates the climate and health co-benefits associated with the final ACE Rule using a three percent and seven percent discount rate. EPA's estimated domestic climate benefits and health co-benefits of the illustrative policy scenario range from \$0.57 to \$1.3 billion in 2030 using a three percent discount rate and \$0.47 to \$1.1 billion in 2030 using a seven percent discount rate.

The ACE Rule continues to use the same methodology for the Social Cost of Carbon (SCC) that the Joint Comments criticized. Specifically, the ACE Rule includes changes to the calculation of the SCC that are not supported by the best available, peer-reviewed scientific literature, the independent conclusions of experts, the extensive work conducted by the Interagency Working Group (IWG) composed of relevant experts across the federal government, or by the National Academy of Sciences' reviews of the IWG analyses and SCC estimates. For example, EPA's approach to the SCC only includes estimation of domestic impacts of climate change and disregards global impacts. In addition, by using a high seven percent discount rate, EPA's SCC approach diminishes the future economic costs of harmful climate impacts and understates the monetary value of avoiding those costs.

The ACE Rule also continues to include sensitivity analyses that ignore the potential health benefits of PM_{2.5} reductions below the established NAAQS thresholds and below the lowest measured level (LML) threshold. As noted in the Joint Comments, neither of these changes to EPA's benefits valuation is supported by the best available, peer-reviewed scientific literature and the independent conclusions of experts. While EPA continues to state in the ACE Rule that it is reflecting the uncertainties associated with estimating such benefits, EPA has a long practice of including the health benefits for reductions at all levels when there is no safe level of exposure to a specific pollutant.

Next Steps: The ACE Rule becomes effective sixty days following its publication in the Federal Register. We expect litigation to start on or soon after its publication. Many of the key questions raised in the CPP litigation are expected to be raised in the litigation of the ACE Rule. Some of the key questions likely include:

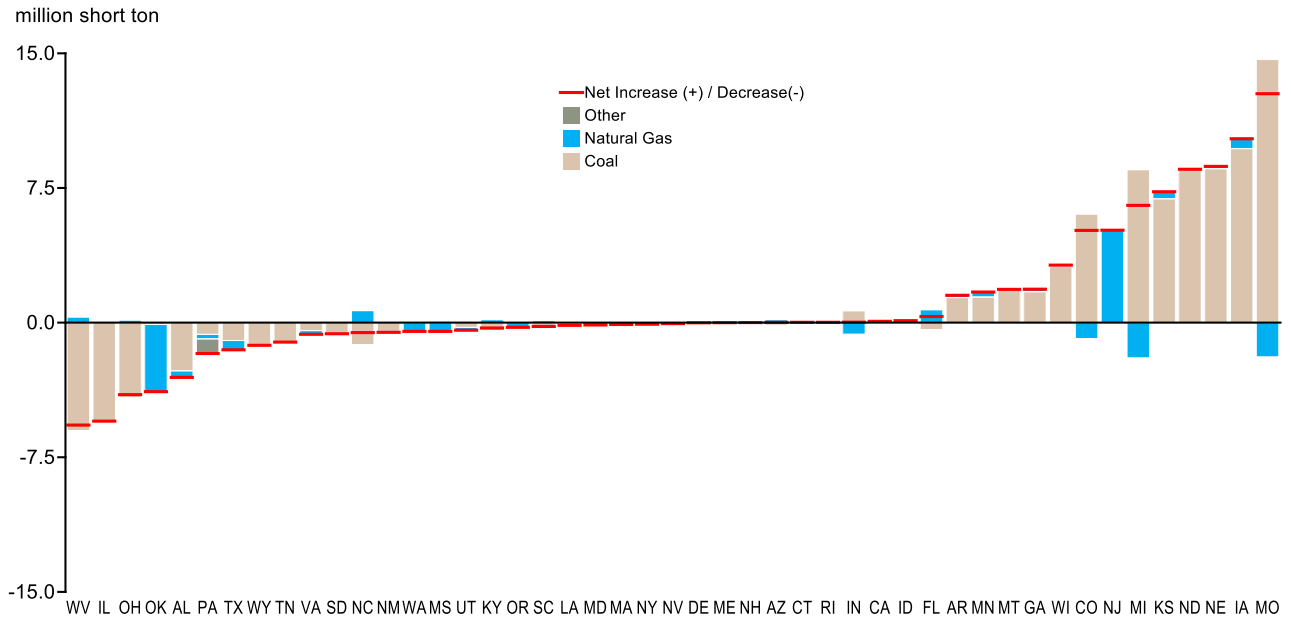
1. Is the ACE Rule's interpretation of the "best system of emission reduction" the *only* interpretation permissible under CAA Section 111(d) and does it ensure that state standards of

performance reflect the emission reductions achievable using the *best* system of emission reduction?

2. Has EPA fulfilled its obligation under Section 111(d) by including only percent emission reduction ranges and cost ranges for the menu of HRI measures that states must apply to determine an emissions rate for each coal-fired unit?
3. Does the CAA allow EPA to finalize a unit-specific BSER that has the potential to cause units to increase their overall emissions?
4. Does CAA Section 111(d) require EPA only to allow an emissions rate for compliance purposes or can EPA or states allow sources to comply with mass-based targets?
5. Can states include more stringent requirements than BSER as part of their Section 111(d) compliance plans, including those that would achieve greater emission reductions than HRI?

Appendix: EPA's RIA: Projected Change in State CO₂ Emission Levels in States

Figure 1: Change in CO₂ Emissions Relative to CPP Limited Trading (2035) and ACE Illustrative Scenario (2035)



Source: Analysis of EPA's RIA and Power Sector Analysis available: <https://www.epa.gov/airmarkets/analysis-final-ace-rule>