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**American Coalition for Clean Coal Electricity
Comments on EPA's Proposed Affordable Clean Energy Rule**

The American Coalition for Clean Coal Electricity (ACCCE) submits the following comments to the Environmental Protection Agency (EPA or Agency) on the proposed Affordable Clean Energy Rule (Proposed ACE Rule or ACE Proposal).¹ The Proposed ACE Rule would establish new emission guidelines for the regulation of carbon dioxide (CO₂) emissions from existing fossil fuel-fired steam electric generating units (EGUs) under section 111(d) of the Clean Air Act (CAA or Act). These emission guidelines, if adopted, would replace the Clean Power Plan (CPP), which EPA has proposed to repeal in a separate rulemaking action.² In addition, the ACE Proposal seeks to adopt key revisions to the "modification" rules of the New Source Review (NSR) program. These revisions are intended to remove potential permitting barriers to efficiency improvement projects and other reliability, safety, and maintenance projects at affected EGUs. ACCCE strongly supports both elements of the Proposed ACE Rule.

ACCCE is a non-profit organization that is the only national trade organization whose sole mission is to advocate at the federal and state levels on behalf of coal-fueled electricity and the coal fleet. ACCCE is made up of members representing every facet of the coal-fired electricity industry, including electricity generators, coal producers, railroads, barge operators, and equipment manufacturers.³ (See attached list.) Given the potential impacts that the regulation of carbon dioxide (CO₂) emissions have on the existing fleet of coal-fired EGUs, ACCCE and its members have a substantial interest in EPA's proposal to establish CO₂ performance standards for coal-fired EGUs under the ACE Proposal.

ACCCE previously submitted separate comments on EPA's proposal to repeal the CPP⁴ as well as on EPA's Advance Notice of Proposed Rulemaking⁵ that

requested input on a wide range of policy and technical matters relating to the development of the CPP replacement rule. Our previous comments submitted on both EPA rulemaking actions are incorporated herein by reference.

I. OVERVIEW OF THE ACCCE COMMENTS

For the reasons explained in our prior comments to the Agency, ACCCE strongly supports EPA's decision to repeal the CPP, which greatly exceeded EPA's authority to regulate CO₂ emissions from fossil fuel-fired EGUs under section 111(d) of the CAA. Notwithstanding our support for repealing and replacing the CPP, we should point out that the CPP suffered from threshold problems that could bar EPA from regulating existing coal-fired EGUs under section 111(d).

One such problem is that section 111(d) precludes the regulation of existing stationary sources that are already regulated for hazardous air pollutants under section 112 of the CAA. Because coal-fired EGUs are already regulated for mercury and other hazardous air pollutants under section 112, the statute precludes the Agency from regulating CO₂ emissions from this same EGU source category under section 111(d). Another problem is that EPA has failed to make an affirmative finding that CO₂ emissions from the EGU source category are "caus[ing], or contribut[ing] significantly, to air pollution which may reasonably be anticipated to endanger public health and the environment."

However, EPA has failed to address these threshold problems in the Proposed ACE Rule. Although very supportive of EPA's efforts to craft a reasonable CPP replacement rule, ACCCE urges EPA to address these outstanding issues in its upcoming rulemaking to reconsider and revise the CO₂ new source performance standards for the EGU source category under section 111(b) of the CAA.

Furthermore, even if the CPP were determined to be lawful (which it is not), it would establish bad policy that would have substantial adverse energy and economic impacts. Among other things, the CPP seeks to usurp the role of states and grid operators in determining the right mix of electric generating resources; would cost consumers and businesses billions of dollars; and, despite its cost, would have a meaningless effect on climate change. By the year 2050, the CPP would have reduced atmospheric CO₂ concentration levels by 0.2%, reduced global average temperature increase by 0.006 degree C, and reduced sea level rise by 0.2 millimeter, the thickness of two sheets of paper. By contrast, the Proposed ACE Rule would establish a lawful, balanced, and cost-effective framework for the regulation of CO₂ emissions from existing coal-fired EGUs. As discussed in our comments, the following is a brief summary of the key legal and policy reasons why ACCCE supports the Proposed ACE Rule.

First, the proposed rule will not cause the premature retirement of more coal-fired generation, as the CPP would have. This is important because coal retirements are becoming an increasing threat to the resilience of the electricity grid.

Second, the proposal respects state primacy by limiting EPA's role under section 111(d) to developing procedural and technical information to guide states in carrying out their role of developing performance standards that are included in state plans.

Third, the proposal requires states to set performance standards based on inside-the-fence emission reduction measures that can be applied to or at coal-fired power plants.

Fourth, the proposal allows states to set unit-specific standards based on the design and operating conditions of each generating unit.

Finally, the proposal includes changes to the NSR modification rules, which have been a major barrier to projects that improve efficiency, reliability, and safety.

I. THE PROPOSED ACE RULE WILL CAUSE FEWER COAL RETIREMENTS.

Since 2010, some 120,000 megawatts (MW) of coal-fired generating capacity have retired or announced plans to retire. This represents an alarming 40 percent of the U.S. coal fleet. Two-thirds of these coal retirements have been attributed to past EPA policies, especially the MATS rule. Coal retirements are becoming an increasing threat to the resilience of the electricity grid because the coal fleet provides fuel security, which is necessary for grid resilience. Resilience means the ability to anticipate, operate through and recover quickly from disturbances that might be infrequent but can have serious, if not catastrophic, consequences. The Federal Energy Regulatory Commission has initiated a proceeding to evaluate the resilience of the bulk power system. In addition, PJM and ISO-NE are conducting analyses aimed at addressing fuel security concerns in their regions. ACCCE has urged FERC to speed up its proceeding and require other ISO/RTOs to conduct fuel security analyses.

At the time the CPP was finalized in 2015, the rule was projected to cause the retirement of as much as 47,000 MW of coal-fired generation, depending on how states might have implemented the CPP.⁶ Those retirement projections were based, in large part, on data from AEO 2015. EPA's RIA for the Proposed ACE Rule, which is based on more recent data (e.g., significantly lower prices for natural gas and renewables), estimates that the retirement of some 5,000 MW of coal-fired generation would be avoided by the ACE Proposal, as compared to the CPP. However, this is still a substantial amount of coal-fired generation that

will be available now to support grid resilience and provide fuel security because of the ACE Proposal. In short, the proposed rule will make the electricity grid more resilient, as compared to the CPP.

II. THE PROPOSED FEDERAL-STATE FRAMEWORK CORRECTLY RESPECTS THE PRIMACY OF STATES IN SETTING ACHIEVABLE CO₂ PERFORMANCE STANDARDS FOR AFFECTED EGUS.

ACCCE supports the federal-state framework that the Proposed ACE Rule would establish for regulating affected EGUs under section 111(d). This framework establishes a clear division in roles and responsibilities between EPA and states. States have the lead role in setting standards of performance for affected existing sources that reflect emission limitations achievable by control measures that can be applied to or at each affected source. By contrast, EPA's role is limited to establishing a general framework that will guide states in setting performance standards for existing affected sources within their jurisdiction. As discussed below, EPA's proposed federal-state framework is fully aligned with this statutory scheme.

A. EPA's Role is Limited to Making a BSER Determination and Developing Emission Guidelines.

The CAA is clear that EPA's role in section 111(d) is limited to performing two tasks. The first task is to determine what is the BSER for controlling emissions from affected sources within the particular source category. EPA's BSER determination must be based on control measures that the Agency determines to be "adequately demonstrated" for existing sources within the source category and that will result in "emission limits" that are achievable by the source itself.⁷ EPA has properly performed its responsibility here by determining that BSER for the EGU source category is efficiency improvements that can be applied at or to affected existing units and, in so doing, proposed a list of seven candidate heat rate improvement (HRI) technologies that states must consider in setting CO₂ performance standards for affected EGUs.

The second task is to "prescribe regulations which establish a procedure" that states shall use in setting performance standards for affected units within their jurisdiction. EPA's role is therefore limited to providing procedural and technical guidance on how states may set performance standards for EGUs within their jurisdiction. Notably, section 111 expressly limits EPA's authority to establish performance standards to only those cases in which the state has failed to adopt a "satisfactory plan" for the regulation of affected units in the first instance.⁸ EPA itself has no authority to dictate what performance standards states must adopt or otherwise tell states how to regulate existing affected sources under their state plans pursuant to section 111(d). EPA, for example, cannot disapprove a state plan based on its disagreement with the

state's policy choices so long as the plan meets the minimum statutory requirements.⁹

In the Proposed ACE Rule, EPA has correctly adhered to this statutory requirement. The ACE Proposal only establishes an overall framework and general guidelines that states can use in setting performance standards for affected EGUs within their jurisdictions. These guidelines do not prescribe specific numeric emissions limits that states must apply to each affected unit. Nor do they dictate how states should set the performance standards for each affected unit. Rather, they provide information on available emission control measures that are deemed to be achievable and the range of emissions reductions that are achievable by those control measures, along with technical information on other relevant factors referenced in the statute. Those factors include information on costs, non-air health and environmental effects, and energy requirements of the identified BSER measures.

B. States Have the Responsibility for Setting CO₂ Performance Standards for Affected EGUs.

The Proposed ACE Rule gives states the lead role in setting CO₂ performance standards for affected EGUs. This approach is consistent with the requirements of CAA section 111(d)(1), which expressly directs each state to submit a “plan which ... establishes standards of performance” for each affected source within its jurisdiction and “provides for the implementation and enforcement of such standards of enforcement.”

In assigning to states the responsibility for setting performance standards, the ACE Proposal has clearly indicated that states have broad discretion in applying emissions standards based on the Agency's BSER determination and guideline information. States are directed to evaluate each of the listed HRI measures in establishing a standard of performance for any particular source.¹⁰ Furthermore, the Agency has properly noted that in applying a standard of performance to a specific source, states are authorized to take into consideration the remaining useful life of the existing source, cost, and other relevant factors.¹¹

ACCCE supports this approach under which states have the lead role in setting source-specific performance standards. Among other things, it enables states to consider how much longer a particular existing EGU will continue to operate and how viable it is to make significant capital investments when establishing the performance standard for the unit. In addition, it allows states to implement performance standards through emissions averaging among units within the same power plant.

III. EPA IS CORRECT TO LIMIT THE BSER DETERMINATION TO INSIDE-THE-FENCE MEASURES FOR IMPROVING EFFICIENCY.

ACCCE supports EPA's proposal to define BSER for the EGU source category as HRI measures that can be applied at or to existing affected units. For the reasons discussed below, it is appropriate for EPA to identify a list of efficiency improvements as BSER that states must consider in setting CO₂ performance standards for affected EGUs. Furthermore, we agree with EPA's decision to reject carbon capture and storage (CCS) and the co-firing with other fuels (such as natural gas or biomass) as BSER based on both technical and legal grounds.

A. BSER Must be Limited to Inside-the-Fence Control Measures that EPA Determines to be "Adequately Demonstrated."

The statute is explicit on how EPA should make its BSER determination for controlling emissions from affected sources within a particular source category. The first step of the process is for EPA to identify all "systems of emission reduction" that are "adequately demonstrated" for the source category and the second step is for EPA to evaluate those systems in order to determine which of them is the "best."¹² In performing this BSER analysis, section 111 of the CAA authorizes EPA to consider only those systems of emission reduction that can be applied at or to an individual source. This limitation on EPA's authority is based, in part, on specific statutory language that directs EPA and states to adopt performance standards "for" and "applicable . . . to" individual regulated sources.¹³ In addition, as EPA itself has recognized in its proposal to repeal the CPP rule,¹⁴ an "outside the fence" BSER determination is expressly inconsistent with other relevant provisions of the CAA, the broader statutory context of the Act, legislative history, and EPA's longstanding historical practice to set performance standards based only on inside-the-fence control measures both under CAA section 111 and the NSR program.

Furthermore, there are compelling policy reasons not to establish CO₂ performance standards based on the beyond-the-fence measures that are the foundation for the CPP. That approach resulted in overly stringent CO₂ emission standards that would have required shifting away from coal to natural gas and renewable energy resources. Neither renewables nor natural gas is a fuel-secure electricity source. Furthermore, allowing EPA to regulate emissions through generation shifting is tantamount to the regulation of energy that is clearly outside the expertise and experience of the Agency and would usurp the role of states and grid operators in determining the right mix of electric generating resources. EPA has corrected this problem in the Proposed ACE Rule by requiring only the consideration of HRI measures that can be applied at or to individual coal-fired generating units. In particular, EPA has proposed to

identify as BSER a list of seven candidate technologies for improving generating efficiencies and thereby reducing CO₂ emissions from affected units.¹⁵

ACCCE believes this is a reasonable approach for defining BSER for the EGU source category. Notably, the listed candidate technologies focus on the “most impactful” HRI measures that states must consider in setting CO₂ performance standards for affected EGUs. This approach makes good policy sense. It focuses the regulatory process on cost-effective HRI measures for achieving the greatest CO₂ reductions, while relieving states of the obligation of having to consider measures that would likely be eliminated from consideration due to negligible CO₂ emissions reductions, disproportionately high control costs, or lack of availability.

B. CCS and Co-firing with Natural Gas or Biomass are not BSER.

As noted above, the statute requires EPA to base its BSER determination on control measures that have been shown to be “adequately demonstrated” for existing sources in the regulated source category and that will result in “emission limitations” that are “achievable” by existing sources within the regulated source category.¹⁶ Moreover, courts have interpreted these statutory requirements to require that BSER must be based on reasonable and cost-effective control measures for limiting emissions from affected sources, and not on measures that are novel or extraordinarily costly.¹⁷ Based on this precedent, EPA properly rejected both CCS and co-firing with natural gas or biomass as BSER for affected coal-fired EGUs.

1. CCS is not BSER.

Based on the statutory requirements and court precedent, EPA properly rejected CCS as BSER for affected coal-fired EGUs. CCS has not been “adequately demonstrated” as a control technology for limiting CO₂ emissions from EGUs. At the present time, CCS is significantly more expensive than other alternatives for reducing CO₂ emissions and consequently is not generally viable, except with major subsidies. Notably, the Agency rejected CCS technology as BSER in the CPP for similar reasons.¹⁸ Nothing has changed since EPA made this CCS technology determination in 2015. While CCS is a promising technology, the technology is currently unproven as the basis for BSER.¹⁹ Furthermore, geological formations suitable for carbon sequestration are unavailable in large parts of the country. This limitation is another reason for EPA to eliminate CCS as the basis for setting a national performance standard. However, this BSER determination should not restrict how a given facility complies with the applicable performance standard, particularly since CAA section 111(b)(5) authorizes the use of any emissions control technology, including emerging new technologies, to comply with the performance standard.

2. Co-firing with natural gas or biomass is not BSER.

ACCCE also supports EPA's decision to eliminate co-firing with natural gas and biomass as viable BSER options for coal-fired EGUs.²⁰ EPA rejected these same co-firing options in the CPP due to infeasibility and excessive costs.²¹ No new developments have occurred to reverse or otherwise change EPA's prior rejection of these co-firing options for controlling CO₂ emissions from coal-fired EGUs. The technical limitations previously identified by EPA in the CPP for acquiring a reliable and adequate supply of natural gas or biomass still preclude co-firing or converting to either one of these fuel sources.²²

Another important factor weighing in favor of eliminating the co-firing alternatives is EPA's longstanding policy against "redefining the source" when setting performance standards under the CAA. That policy – which has been upheld by the courts²³ – recognizes that the choice of fuel is a fundamental part of a source's design, and that requiring the source to use a different, lower-emitting fuel exceeds EPA's authority under the CAA.²⁴ For this reason, EPA proposed that the BSER analysis need not include the consideration of emissions control options that would "fundamentally redefine the source," thereby eliminating the natural gas and biomass co-firing alternatives for coal-fired units.²⁵ Based on these and other important technical considerations and legal limitations, ACCCE agrees that EPA is precluded from designating co-firing as BSER under section 111(d) of the Act.

IV. UNIT-SPECIFIC STANDARDS ARE NECESSARY TO ACCOUNT FOR THE WIDE DIVERSITY AMONG INDIVIDUAL EGUS.

ACCCE supports EPA's proposal to allow states to set unit-specific performance standards that are tailored to particular design and operating characteristics of each affected EGU. This flexibility in setting unit-specific standards is critically important because there is no commercially available retrofit control equipment to reduce CO₂ emissions from existing coal-fired units. Instead, the CO₂ emission reduction measures available to affected units are limited to those physical or operational changes that enable the unit to operate more efficiently, burn less coal per MWh of generation, and therefore emit less CO₂. However, a variety of factors influence the types of efficiency improvements available at individual power plants.

Design factors influencing the performance of coal-fired units include the following: design of the boiler; the type of coal burned; the size and generating capacity of the unit; the age and remaining useful life of the unit; the type of cooling system used by the unit (e.g., cooling towers vs. once-through cooling systems); the types of emissions control systems used by the unit (e.g., scrubber, SCR, baghouse); and the location of the unit (specifically, elevation and ambient temperatures at the facility). The combination of these factors

causes generating units to have widely different operating characteristics, efficiencies, and CO₂ emission rates.

This variability in unit performance is further complicated by the substantial differences and fluctuations in the operating characteristics of each unit. Coal-fired EGUs operating at full baseload levels will generally achieve much higher efficiency levels (with lower CO₂ emissions per MWh), as compared to cycling units that operate at low capacity factors. Moreover, these external operating factors are likely to occur even at the same unit in response to changing market demands and other external factors that are typically beyond the control of EGU operators. As a result, the benefit of HRI projects may be greatly diminished by either cycling or low-capacity operating levels.

Any effort to standardize CO₂ emissions “performance” within the diverse fleet of coal-fired EGUs by using a one-size-fits-all approach is simply not possible. No single design or operating characteristic can determine an EGU’s CO₂ emissions and, even among any class of similar units, there is substantial variation in CO₂ emissions rates due to a range of operating conditions.

Furthermore, performance standards should be set in a manner that will not have the effect of dictating or interfering with the unit’s utilization and operating profile. Load levels of coal-fired EGUs fluctuate due to a wide range of factors, including demand for electricity, growing amounts of intermittent generation, and relative costs of natural gas and coal. While many coal-fired EGUs may be operating at reduced load levels in recent years, this trend could change in the future if the relative price of natural gas versus coal changes in the future. EPA therefore should establish emission guidelines that do not constrain a coal-fired unit’s ability to meet market demand for electricity. Rather, the EPA guidelines and state performance standards should account for the fact that CO₂ emission rates and tonnages can increase or decrease by a change in the utilization of the unit or other unit-specific circumstances.

For these reasons, ACCCE strongly supports EPA’s proposal to establish a regulatory framework that allows states to set the CO₂ performance standard for each affected EGU on a unit-by-unit basis. In so doing, states must be able to set unit-specific standards that take into account the design and fluctuating operating conditions of each unit. This unit-specific approach is necessary to enable states to ensure the achievability of CO₂ performance standards that states must set for affected units within their jurisdictions.

V. EPA SHOULD PROVIDE STATES WITH BROAD DISCRETION IN SETTING PERFORMANCE STANDARDS.

ACCCE supports EPA’s proposal to establish a flexible standard-setting process under section 111(d) of the CAA. In particular, state flexibility is needed in

setting key parameters of the CO₂ performance standards that states must apply to existing EGUs. Notable examples include the following:

- Form of the standard (gross or net MWh output standard);
- Length of the averaging period for meeting the numeric emission rate limitation;
- Adjustments in the stringency of a performance standard in order to account for the remaining life of the unit or other relevant site-specific factors; and
- Length of the compliance period needed for meeting the applicable performance standards.

The discussion below briefly reviews the reasons why states should be accorded wide latitude in setting each of these parameters.

Standards Based on Gross and Net MWh Output. The Proposed ACE Rule would require states to set performance standards for affected EGUs and to express the form of that standard as “an emission performance rate relating mass of CO₂ emitted per unit of energy (e.g., pounds of CO₂ emitted per MWh).”²⁶ However, EPA has not yet determined whether this CO₂ emissions rate limitation should be expressed as a gross output-based standard (i.e., CO₂ emitted per unit of gross MWh output) or a net output-based standard (i.e., CO₂ emitted per unit of net MWh output). Given that there are advantages and disadvantages of each approach,²⁷ ACCCE recommends that EPA should delegate this implementation matter to the states, giving them wide latitude in determining what form of the standard is most appropriate based the factual circumstances of each particular affected unit.

Length of the Averaging Period. ACCCE agrees with EPA’s interpretation that states have broad discretion in determining the appropriate length of the averaging time that will apply to the numeric CO₂ emissions rate limits for affected units.²⁸ While this aspect of the standard-setting process is being properly delegated to the states, we underscore our support for the establishment of an extended averaging period that spans at least one year, if not a multi-year period.

An extended averaging period is essential given that coal-fired EGUs are frequently no longer operated as baseload units but have significant variability in their duty cycles that result in the dispatch of units at intermediate and low load levels over the course of a year in response to market fluctuations and other circumstances. This variation in duty cycle can translate into significant fluctuations in the heat rate and CO₂ emissions achieved by the unit, with the heat rate and CO₂ emissions increasing at lower loads or during cycling operations. By contrast, the unit’s heat rate and CO₂ emissions will decline when the unit is dispatched at higher load levels. To smooth out these fluctuations in CO₂ emissions levels (which are beyond the control of unit

operators), it is critically important for EPA to allow states to establish an averaging period that extends over an annual or multi-year period.

Granting of Variances. There are a wide range of factors that justify states, on a case-by-case basis, reducing the stringency of CO₂ performance standards for any particular EGU. Site-specific factors referenced in EPA's proposed implementing regulations include the unreasonable cost of control resulting from plant age, location, or basic design process; physical impossibility of installing the necessary control equipment; or other factors applicable to the facility that make establishment of a less stringent standard or extended compliance period more reasonable.²⁹

ACCCE agrees with EPA that it would be appropriate to issue a waiver in a wide range of situations based on the application of these factors.³⁰ Notable examples identified in the preamble to the ACE Proposal include those cases where the payback period for the capital investment is too short due to the limited remaining useful life of unit, the cost of the HRI measure is substantial but would achieve minimal CO₂ emissions reductions, or there are space constraints or other physical barriers to certain HRI measures at specific units.³¹ Furthermore, we agree with the Agency that there may be other challenging situations that could justify the application of the waiver provision. Other examples identified by EPA include situations where "heat rate improvements are either not applicable or have already been implemented at certain units," or where there is a potential risk "the application of HRI may trigger NSR for some sources."³² In such cases, EPA should confirm in the ACE emission guidelines themselves that states have broad discretion not to set the performance standards based on those HRI measures.

Length of Compliance Period. The Proposed ACE Rule provides states with the authority to extend compliance periods for meeting the performance standards. This flexibility in extending compliance deadlines could become important in a variety of circumstances. One example is the situation in which compliance with the applicable standard will require the implementation of two or more candidate technologies – particularly in those cases where the completion of the HRI projects would need to span multiple outage periods. Similarly, states must have broad discretion to extend the compliance deadlines to ensure the coordination of the planned outage schedules within electric utility systems. Allowing such coordination is not only essential to ensure electric grid reliability and resilience but will reduce the overall cost of the ACE regulatory program.

VI. EPA antial benefits to flexible implementation measures, such as emissions averaging and trading. These benefits include increased flexibility on how, when, and where to reduce emissions in the most cost-effective and efficient manner. This flexibility translates into significant cost savings to industry, while achieving the overall emissions reduction goals of the particular air regulatory program.³³

Notwithstanding these potential benefits, EPA is proposing to place constraints on the authority of states to use emissions averaging or trading schemes to facilitate compliance with the performance standards in the Proposed ACE Rule. Under EPA's proposed approach, states would only have the authority to allow the use of emissions averaging among affected units located at the same facility. On the other hand, states would be prohibited from adopting other flexible compliance mechanisms that are broader in scope, such as averaging or trading with affected units located at different facilities or with any non-affected generating units (e.g., NGCC units).

In the preamble to the Proposed ACE Rule, EPA has provided a detailed justification for its proposal to impose restrictions on emissions averaging and trading.³⁴ One important reason noted by EPA is that broad averaging and trading schemes are inconsistent with the inside-the-fence methodology used for setting the CO₂ performance standards. EPA argues that state implementation measures must "mirror" EPA's determination of BSER. Since the BSER determination is based solely on inside-the-fence measures, the implementation mechanism also must be limited to those reductions achievable by or at the affected facility in order to avoid "asymmetrical regulation."³⁵ Another reason noted by EPA is that market-based flexibility mechanisms could create an incentive for electric utilities to curtail the operation of, or even shut down, their existing coal-fired units. According to EPA, this outcome could frustrate the statutory objectives of section 111(d) by allowing affected units to comply with their performance standards by using emissions credits generated by the curtailment or retirement of existing units, instead of making the required efficiency improvements for enhancing the performance of affected units.³⁶

Recognizing the importance of EPA's legal and policy considerations, ACCCE supports EPA's proposal to adopt reasonable limitations against the broader use of emissions averaging and trading under the ACE Rule. If the Agency elects to keep these restrictions for purposes of this rulemaking, we urge the EPA to explain in the Final ACE Rule that the restrictions do not set a binding legal precedent that requires the Agency to impose similar restrictions in the future. The Final ACE Rule should expressly indicate that EPA is not permanently foreclosing the possible use of broad emissions averaging or trading schemes in any future program to regulate stationary sources, including existing EGUs, under section 111(d) of the Act.

VII. NEW EXTENDED TIME FRAMES ARE NEEDED TO ENSURE EFFECTIVE IMPLEMENTATION OF THE PROGRAM.

EPA has proposed to adopt new implementing regulations that would revise the timelines for the submission of a state plan, as well as for EPA and state actions for implementation of the state plan or, if necessary, imposition of a federal plan.³⁷ These new deadlines extend the unreasonably tight timelines established in the Agency's original 1975 implementing regulations. For example, EPA allows states three years from the promulgation of a final emission guideline to submit a plan. EPA gives itself twelve months to review any plan and two years to develop a federal plan. These timeframes are reasonable given that they closely aligned to deadlines for the state plan process under section 110 for implementing the NAAQS.

For NAAQS, states are required to submit SIPs three years after the promulgation of a NAAQS.³⁸ EPA is required to take final action on a SIP within one year after the submission.³⁹ Federal implementation plans (FIPs) are required to be promulgated any time within two years after EPA finds that a state has failed to submit a required SIP, or disapproves of a SIP in whole or in part.⁴⁰ These time frames are all identical to the newly proposed revised implementing regulations in the ACE Rule.

Given the delays encountered by states either developing or having SIPs approved under the NAAQS program, ACCCE agrees that revised timelines make good sense. That said, ACCCE recommends that EPA finalize the timelines but with one change. As proposed, EPA would not be required to approve state plans until 12 months after determining completeness, but affected units would be required to comply within 24 months of submission. ACCCE recommends that the initial compliance period for affected units begin no earlier than 24 months *from the date of EPA approval*. The start of the initial compliance period should be tied to plan *approval* and not plan *submission* so that affected units do not undertake HRI projects to comply with a state-developed performance standard that EPA might ultimately disapprove.

VIII. EPA SHOULD REMOVE NSR BARRIERS.

The NSR program is a major deterrent to improving the efficiency of the coal fleet. In particular, the complexity and arbitrariness of the current NSR modification rules have been the source of substantial regulatory uncertainty that, in turn, has discouraged EGU owners and operators from undertaking many projects for improving the efficiency, reliability, or safety of existing EGUs. This uncertainty takes on even a greater importance in the context of the Proposed ACE Rule, which requires CO₂ emissions reductions through the implementation of efficiency improvement projects. The failure to fix this problem with the NSR program would leave EGU owners and operators

vulnerable to after-the-fact, second guessing even though these projects in many cases represent common plant maintenance activities that should be excluded from the definition of “major modification” under existing NSR regulations.

In the Proposed ACE Rule, EPA seeks to address the most serious problems with the current NSR modification rules by adding a maximum hourly emissions rate increase test. The effect of this proposed rule change would be to exclude from the burdensome NSR requirements any project that does not result in an increase in the EGU’s maximum hourly emissions.⁴¹ Most importantly, this exclusion from NSR permitting can be confirmed without having to determine whether the project results in a “significant net annual emissions increase” under the current very complicated NSR rules.

ACCCE supports this proposed approach. The maximum hourly emissions test would exclude from NSR those HRI projects that could potentially result in a projected increase in annual emissions due to the increased dispatch and utilization of the generating unit as a result of its improved efficiency and increased availability. So long as the HRI project does not increase the unit’s maximum hourly emissions, an EGU owner or operator could avoid having to conduct the detailed and complex NSR analysis.⁴²

Furthermore, it is important to note that the proposed NSR reform is not only good environmental policy but is also clearly allowed under the CAA. EPA has broad statutory authority to adopt a definition of “modification” under the NSR program that is based on increases in maximum hourly emissions, whether those increases are “achievable” or “actual.”⁴³ This interpretation has been expressly confirmed by the D.C. Circuit Court on several occasions.⁴⁴ In addition, the Supreme Court has validated the maximum hourly emissions increase test as a permissible interpretation of the statutory definition of “modification.”⁴⁵

And finally, ACCCE believes that the scope of EPA’s proposed NSR reforms should be as broad as possible. The proposed NSR reforms are justified and needed even in the absence of the ACE Rule. Specifically, they are needed to remove potential barriers to projects for ensuring the safety, reliability, and efficiency of any and all EGUs. Accordingly, the scope of EPA’s reforms should be as broad as possible, applying to all EGUs (not just those affected under the ACE Rule), all physical or operational changes (not just HRI projects necessary for meeting the CO₂ performance standards), and all NSR-regulated air pollutants.

ACCCE appreciates the opportunity to submit these comments in support of the Proposed ACE Rule. If you should have any questions, please contact me at mbloodworth@americaspower.org.

Sincerely,



Michelle Bloodworth
President and CEO
America's Power / ACCCE

¹ *Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program; Proposed Rule*, 83 Fed. Reg. 44,746 (Aug. 31, 2018).

² *See Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Proposed Rule*, 82 Fed. Reg. 48,035 (October 16, 2017).

³ A list of ACCCE members is attached.

⁴ *Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Proposed Rule*, 82 Fed. Reg. 48,035 (October 16, 2017).

⁵ *State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units*, 82 Fed. Reg. 61,507 (December 28, 2017).

⁶ NERA Economic Consulting, "Energy and Consumer Impacts of EPA's Clean Power Plan," November 7, 2015.

⁷ CAA section 111(a)(1).

⁸ *See* CAA section 111(d)(2) (providing that EPA shall only have authority to "prescribe a plan for a State in cases where the State fails to submit a satisfactory plan").

⁹ Just like in the case of state implementation plans (SIPs) for achieving ambient air quality standards under section 110 of the Act, EPA has an obligation to approve that plan so long as it is "satisfactory." Section 111(d)(2) of the CAA. Just as states have broad discretion in developing SIP emission control measures for attaining ambient air quality standards, states have wide latitude in the development of plans for regulating existing stationary sources under CAA section 111(d). In both cases, EPA cannot disapprove a state plan based on its disagreement with the state's policy choices so long as it meets the minimum statutory requirements. *See Union Electric Co. v. EPA*, 515 F.2d 206 (8th Cir. 1975).

¹⁰ 83 Fed. Reg. at 44,756.

¹¹ 83 Fed. Reg. at 44,756. We also agree with EPA's interpretation that the phrase "other factors" in CAA section 111(d)(1) is meant to include a broad category of considerations and may include factors such as (1) unreasonable cost of control resulting from plant age, location, or basic process design; (2) physical impossibility of installing necessary control equipment; and (3) other relevant factors specific to the facility or class of facilities that make application of a less stringent standard or final compliance time significantly more reasonable. 83 Fed. Reg. at 44,756.

¹² Section 111(a)(1) of the CAA.

¹³ Sections 111(a)(2), (b)(1)(B), (d) of the CAA.

¹⁴ *See* 82 Fed. Reg. at 48,039-42. *See also* 83 Fed. Reg. at 44752-54 (discussing the legal justification for inside-the-fence interpretation in the Proposed ACE Rule).

¹⁵ The seven candidate technologies identified by EPA in the Proposed ACE Rule include the following: (1) neural network and intelligent sootblowers; (2) boiler feed pumps; (3) air heater

and duct leakage control; (4) variable frequency drives; (5) blade path upgrade (steam turbine); (6) redesign or replacement of the economizer; and (7) best operating and maintenance practices for improving unit efficiencies. See 83 Fed. Reg. at 44,756-61.

¹⁶ Section 111(a)(1) of the CAA.

¹⁷ To be “adequately demonstrated,” courts have ruled that the system of emission reduction must be “one which has been shown to be reasonably reliable, reasonably efficient, and which can reasonably be expected to serve the interests of pollution control without becoming exorbitantly costly in an economic or environmental way.” *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 433 (D.C. Cir. 1973). To be achievable, courts have further explained that the performance standard must be capable of being met “for the industry as a whole,” “under the range of relevant conditions which may affect the emissions to be regulated,” including “under most adverse conditions which can reasonably be expected to recur.” *Nat’l Lime Ass’n v. EPA*, 627 F.2d 416, 431 n.46, 433 (D.C. Cir. 1980).

¹⁸ 80 Fed. Reg. at 64,755.

¹⁹ 80 Fed. Reg. at 64,755.

²⁰ 80 Fed. Reg. at 64,755.

²¹ 80 Fed. Reg. at 64,728.

²² In particular, existing coal-fired EGUs typically have limited or no access to these alternative fuels for co-firing or conversion. In addition, some coal-fired units – particular units in rural areas – may not have access to natural gas pipeline infrastructure. Other units may be connected to natural gas pipelines but would not be able to expand the amount of natural gas they use in order to co-fire with the natural gas. And some units may be limited to interruptible supply contracts, leaving them vulnerable to fuel unavailability. See 83 Fed. Reg. at 44,762-73.

²³ See, e.g., *Sierra Club v. EPA*, 499 F.3d 653 (7th Cir. 2007).

²⁴ *PSD and Title V Permitting Guidance for Greenhouse Gases*, at pages 26-7. This limitation would also apply to the authority of any state or local agency. While the regulatory context for applying EPA’s “redefining the source” policy has been the issuance of CAA permits for the construction of new or modified stationary sources, we agree with EPA that there are compelling reasons to apply this policy to the standard-setting process for existing sources under CAA section 111(d). As the Agency explained in the preamble to the Proposed Rule, existing EGUs regulated under section 111(d) “are well past the proposal stage” so that “redefining such sources would likely require, at a minimum, significant modification and could even require decommissioning, redesign and new construction.” 83 Fed. Reg. at 44,753.

²⁵ 83 Fed. Reg. at 44,753.

²⁶ 83 Fed. Reg. at 44,809.

²⁷ A net output-based standard, for example, would recognize the improved efficiency to be achieved from upgrades to equipment that reduces the auxiliary power demand, whereas a gross output-based standard would not. By contrast, a net output-based standard would present a number of accounting challenges. For example, in those cases where multiple affected units are located at the same site, procedures would need to be developed to allocate the auxiliary electrical load among those units. In addition, a net output-based approach would penalize those EGUs that install and begin operating new pollution control equipment after the establishment of the performance standards. Since the standards would be expressed in terms of CO₂ emitted per net output, any increased consumption of electricity for the operation of the new control equipment would result in an increase in emissions as measured by the standard.

²⁸ 83 Fed. Reg. at 44,769.

²⁹ See Proposed 40 C.F.R. § 60.24a(f); 83 Fed. Reg. at 44,805.

³⁰ It should be noted that the effect of the variance provision is not to provide relief from any regulatory obligation to achieve prescribed emissions rate limitations since the proposed ACE emissions guidelines only identify candidate HRI technologies without specifying a specific CO₂ rate emissions limitation. Rather, the purpose of the variance provision is to allow states to set

performance standards without considering those candidate technologies for which states have determined waivers to be appropriate for particular units.

³¹ See 83 Fed. Reg. at 44,766-67, 44,774.

³² See 83 Fed. Reg. at 44,766-67, 44,774.

³³ The cost savings are well documented for a variety of cap-and-trade programs, including the SO₂ Acid Rain Program and the various interstate trading programs that EPA has established for limiting SO₂ and NO_x emissions across the eastern half of the United States. See, e.g., Resources for the Future Paper, entitled *The Impact of Trading on the Costs and Benefits of the Acid Rain Program* (June 2015; Revised April 2017); EPA, *Regulatory Impact Analysis for the Final Cross-State Air Pollution Rule* (June 2011); G. Chan, R. Stavins, R. Stowe, and R. Sweeney, *The SO₂ Allowance-Trading System and the Clean Air Act Amendments of 1990: Reflections on 20 Years of Policy Innovation*, National Tax Journal (June 2012).

³⁴ 83 Fed. Reg. at 44,767-68.

³⁵ 83 Fed. Reg. at 44,767.

³⁶ In particular, EPA states: “Under a trading program, a single source could potentially shut down or reduce utilization to such an extent that its reduced or eliminated operation generates adequate compliance instruments for a state’s remaining sources to meet their standards of performance without implementing any additional measures at any other source.” 83 Fed. Reg. at 44,768.

³⁷ 83 Fed. Reg. at 44,770.

³⁸ Section 110(a)(1) of the CAA.

³⁹ Section 110(k)(2) of the CAA.

⁴⁰ Section 110(c)(1) of the CAA.

⁴¹ See 83 Fed. Reg. at 44,798-44,803 (proposed 40 C.F.R. §§ 51.167 and 52.25).

⁴² Among other things, the NSR rules require the owner or operator to determine whether the project could result in a significant increase in an annual emissions as well as a significant net annual emissions increase when all contemporaneous annual emissions increases and decreases from other projects are accounted for over a five-year period just prior to the project.

⁴³ Notably, the CAA does not specify how emissions increases should be measured, leaving EPA with broad discretion to make this determination based on its extensive expertise and experience. This silence provides the Agency with wide latitude to fill this statutory gap. So long as EPA has developed a reasonable method by which to calculate an emissions increase for purposes of NSR applicability, ACCCE believes that interpretation is permissible and an appropriate exercise of the Agency’s discretion under the *Chevron* doctrine. See *Chevron*, 467 U.S. at 837 (holding that when a statute is silent or ambiguous with respect to a specific issue, the relevant inquiry for a reviewing court is whether the agency’s interpretation of the statutory provision is permissible). Furthermore, an hourly emissions increase test is clearly a permissible interpretation under the CAA. First, nothing in the Act precludes EPA from measuring emissions increases in terms of hourly rather than annual emissions. Second, EPA has used an hourly emissions increase test under the NSPS program for over four decades. By cross-referencing section 111’s definition of “modification” in the Act and declining to explicitly reject the NSPS and PSD programs’ preexisting focus on hourly emissions in the 1977 CAA amendments, Congress at least indicated that an hourly approach would be *permissible* under the NSR program.

⁴⁴ In one case decided in 2005, the D.C. Circuit ruled that “[i]n enacting the NSR program, Congress did not specify how to calculate ‘increases’ in emissions, leaving EPA to fill in that gap while balancing the economic and environmental goals of the statute.” *New York v. EPA*, 413 F.3d 3, 27 (D.C. Cir. 2005) According to the court, “[d]ifferent interpretations of the term ‘increases’ may have different environmental and economic consequences, and in administering the NSR program and filling in the gaps left by Congress, EPA has the authority to choose an interpretation that balances those consequences.” 413 F.3d at 23-24. Similarly, in a subsequent D.C. Circuit decision issued in 2006, the court reinforced EPA’s broad discretion to determine

what emission increases trigger NSR by contrasting it with Congress's clear direction as to what physical changes constitute modification. *New York v. EPA*, 443 F.3d 880 (D.C. Cir. 2006).

⁴⁵ *Environmental Defense v. Duke Energy Corp.*, 549 U.S. 561 (2007). In particular, the Supreme Court addressed the issue of whether the CAA allows the Agency to require that a project result in a maximum hourly emissions increase under the current NSPS rules before that project can become a major modification under the NSR regulations. In response to this question, the Court observed that interpreting "modification" to include both an hourly and annual emissions increase as "set and subset .. sounds right." 549 U.S. at 581 footnote 8.



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