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U.S. Environmental Protection Agency
EPA Docket Center
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Attention Docket ID No. EPA-HQ-OAR-2017-0355

To Whom It May Concern:

On behalf of the National Association of Clean Air Agencies (NACAA), we are submitting the following comments on U.S. Environmental Protection Agency's (EPA's) proposed *Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program*, which was published in the *Federal Register* on August 31, 2018 (83 Fed. Reg. 44,746). NACAA is the national, non-partisan, non-profit association of 154 local and state air pollution control agencies in 40 states, the District of Columbia and four territories. The air quality professionals in our member agencies have vast experience dedicated to improving air quality in the U.S. These comments are based on that experience. The views expressed do not represent the positions of every state and local air pollution control agency in the country.

These comments identify concerns with a number of aspects of the proposed Affordable Clean Energy (ACE) rule. It is not clear that EPA's proposal would provide more than a nominal national reduction in CO₂ emissions using significant state and regulated party resources while increasing both CO₂ and criteria pollutant emissions at some affected facilities. Of particular concern is the associated NSR relaxation proposal that applies more broadly than the proposed CO₂ emission reduction requirements. EPA should not make it harder for state and local air agencies to meet their air quality goals.

The analysis in these comments can be grouped into four issue areas: the process EPA has undertaken to develop the proposed ACE rule; aspects of EPA's proposed emission guidelines for power plants; EPA's proposed changes to the NSR program; and the emissions impacts of EPA's proposed rule package. These comments are offered in the spirit of cooperative federalism to help EPA better engage with its air agency partners, ensure that any final rule does not overburden state and local governments and to advance the protection of clean air and public health.

I. Engagement with State and Local Air Agencies

The notice and comment process required for EPA rulemakings establishes the framework for state and local air agencies to work with EPA to craft workable regulatory programs. The process used to develop the proposed ACE rule missed opportunities to draw from state and local air agency expertise.

To develop the proposed ACE rule, EPA issued an advance notice of proposed rulemaking (ANPRM) on Clean Power Plan (CPP) rule replacement options last year. NACAA's response was submitted on February 26, 2018 and addressed comments in ten separate areas.¹ Most of those comments were not acknowledged or addressed in the proposed ACE rule, though many of them remain relevant and important. As such and as requested by EPA,² we are resubmitting a copy of our ANPRM comments and all related attachments to this rulemaking docket for additional consideration and will reference them as appropriate throughout this letter.

An additional area of concern with the process behind EPA's proposed ACE rule has been the agency's lack of outreach to state and local air agencies. Better engagement from EPA would have provided more opportunities for air agencies, which will bear the burden of implementing the rule, to better understand their obligations under the proposed ACE rule and to offer more informed comments on the rule's structure and impacts. For example, concerns pursuant to the applicability language in the proposed rule illustrate the way that early state and EPA engagement may have served to identify issues early and enabled them to be appropriately addressed in the rulemaking.

II. Proposed Power Plant Emission Guidelines

A. Applicability

While the emission guidelines in the proposed rule focus on coal-fired electric generating units (EGUs), their applicability appears to be much broader than EPA presumes. Press materials from the agency estimate that the rule will apply to 600 coal-fired units,³ but an application of the rule's applicability criteria to national inventories of generating units suggests that a significant number of natural gas- and oil-fired units will also be considered affected units. This result follows from the applicability language at proposed 40 C.F.R. § 60.5775a, which treats steam generating units with nameplate capacity greater than 25 MW and a base load rating greater than 250 MMBtu/hr as affected EGUs. Proposed § 60.5780a creates exemptions for nine categories of EGUs that would otherwise be affected units but does not include exemptions for steam-fired EGUs that rely on either oil or natural gas. While some natural gas-fired units would be excluded from the rule based on the language at § 60.5780a(a)(3) exempting combined cycle and combined

¹ NACAA's ANPRM comments were assigned docket ID EPA-HQ-OAR-2017-0545-0357. They are also available at: <http://4cleanair.org/sites/default/files/Documents/NACAACPPANPRMComments-Final-02262018.pdf>.

² 83 Fed. Reg. 44,748 (Aug. 31, 2018).

³ The estimate appears in EPA's "ACE Overview" factsheet where EPA states "Approximately 600 coal-fired electric generating units at 300 facilities could be covered by this proposed rule." The fact sheet is available here: https://www.epa.gov/sites/production/files/2018-08/documents/ace_overview_0.pdf.

heat and power combustion turbines, there are a significant number of steam generating natural gas-fired EGUs that would remain affected. Based on our analysis of publicly available power plant inventories, more than 300 additional natural gas- and oil-fired units will be treated as affected EGUs, expanding EPA's estimated affected EGU inventory by 50 percent or more.⁴ The proposed ACE rule does not include a best system of emission reduction (BSER) analysis for either of these types of units nor does it contain a rationale for exempting them.⁵ Whether EPA decides to resolve the ambiguity by presenting an additional BSER analysis or by broadening the ACE rule's exemptions, state and local air agencies should have an opportunity to comment on the issue.

B. Limited Scope of EPA's BSER Review

NACAA is concerned that EPA's proposed definition of the BSER ignores or excludes CO₂ reduction opportunities that would be applicable at or to an affected EGU. The proposal defines BSER as a list of six heat rate improvement (HRI) "candidate technologies" as well as a combination of activities characterized as "Improved O&M Practices." Though EPA provides a definition for each item on the list of proposed BSER approaches, the agency does not provide a public record in the preamble's regulatory docket of how it arrived at the list of candidate technologies. EPA's ANPRM to support the proposed ACE rule listed more than 20 HRI equipment upgrades and technologies, creating a large mismatch between the initial set of HRI measures put forth for public comment and those that appear in the proposed ACE rule as candidate technologies. The proposed ACE rule also exempts technologies that could be used to reduce greenhouse gas (GHG) emissions at certain EGUs without any analysis or explanation. For example, combined heat and power units are exempted at proposed 40 C.F.R. § 60.5780a(a)(3) without any discussion or rationale in the preamble text. NACAA's comments to the ANPRM emphasized the importance of conducting a broad analysis to determine BSER when setting GHG emission guidelines, even within the confines of EPA's proposed "inside the fenceline" approach, and we again urge EPA to conduct such an analysis. Beyond this analysis, states will also need to understand why EPA went from more than 20 HRI equipment upgrades to less than 10 that are included as part of BSER, as that is likely a topic that will be a part of the state planning process.

C. Example Plan Language and Guidance for Air Agencies

The proposal does not present sufficient guidance for state and local air agencies to evaluate how a final ACE rule would be implemented. The proposed ACE rule does not include specific guidance on how to calculate performance standards from the range of potential heat rate improvement percentages associated with the proposed candidate technologies. The proposal further indicates that EPA may even decline to include a recommended or exemplary approach to

⁴ To reach this conclusion, NACAA reviewed information collected through EIA-Form 860. The 2017 data set includes a sortable spreadsheet listing plant-level data for all surveyed generators. It identifies 346 natural gas steam turbines with nameplate capacity greater than 25 MW in the U.S. The number drops slightly to 325 units after eliminating plants associated with a combined heat and power system. The 2017 EIA-Form-860 data is available here: <https://www.eia.gov/electricity/data/eia860/>. A parallel analysis based on EPA's NEEDS Database for the proposed ACE rule produces a similar estimate.

⁵ The proposed ACE rule references a determination to exclude simple cycle units from the CPP but does not explain whether that analysis has been adopted or updated by the proposal. *See* 83 Fed. Reg. 44,761 (Aug. 31, 2018).

deriving performance standards in the final ACE rule.⁶ Similarly, the proposal does not demonstrate how states are to credit emissions associated with non-BSER technologies toward an applicable emissions standard. A final ACE rule without exemplary standard-setting and compliance-determination calculations would exacerbate the rule's implementation burdens and create significant regulatory uncertainty as states develop widely different methods to determine performance standards for affected EGUs. NACAA has already requested a model state plan in our ANPRM comments, and we do so again here, along with reiterating our request for implementation guidance.

Presumptively approvable plan language, presumptively approvable standards, or a presumptively approvable standard setting methodology need not restrict state flexibilities. EPA could present these as options in the rule and specify in all cases that states remain free to craft alternative compliance approaches consistent with the emission guidelines. EPA could also undertake an intermediate approach that provides guidance on how air agencies are to set emission standards and perform compliance calculations. At a minimum, we recommend EPA provide example calculations that convert sample HRI percentages drawn from EPA's candidate technologies, both individually and in combination, across a representative inventory of sources into the rate-based CO₂/MWh emission rate standard EPA is requiring for the performance standards. Further, because EPA is proposing that EGUs be allowed to use certain non-BSER technologies to meet the performance standard, we recommend EPA include example compliance demonstrations in any guidance developed for air agencies showing the application of both BSER and non-BSER technologies.

While some agencies will choose to devote resources to develop their own standard setting and compliance determination approaches, there will be some that do not have the resources to do so. It is critical that EPA provide guidance materials to states to assist in rule implementation. The absence of EPA guidance also enhances the risk of confusion and inconsistency in the ACE rule's implementation. Without a set of guiding implementation principles, individual air agencies are more likely to find themselves subject to public controversy while trying to stay within the acceptable range of implementation choices. If distinctly different approaches are taken by agencies, similar EGUs located in different states could be treated differently in ACE implementation plans. As a result, EPA's singular focus on flexibility to justify the absence of guidance may have unintended consequences because that absence would create uncertainty for both EPA's state and local partners and the regulated community.

D. Program Interactions

While the ANPRM acknowledged that many states have already developed or are developing their own GHG programs and requested comment on potential interactions between federal and state GHG programs, the proposed ACE rule is silent on this topic. This remains a critical and complex issue for many air agencies. We reiterate our request that EPA take care to ensure that the ACE rule, if finalized, does not interfere with existing state and local programs including cap-and-trade programs and state-level GHG reduction goals, and that it does not

⁶ 83 Fed. Reg. 44,764 (Aug. 31, 2018).

preclude the development of future programs. Any final ACE rule should also not prevent states from choosing to go further in stringency than the federal standard.

E. Federal Funding for State Implementation

Even if EPA provides a model state plan or other guidance as suggested above, we continue to have serious concerns with the implementation burden the proposed ACE rule will have on state and local air agencies. The proposal requires air agencies to construct a list of affected EGUs, review the applicability of candidate technology at each affected EGU and codify those results into enforceable permit conditions. In some states the process will also require a rulemaking. These steps will draw on limited agency resources and staff hours and may also trigger a public review process in many jurisdictions. In many states, the expertise for this analysis may not reside in the state air agencies and may require collaboration with state energy offices and utility commissioners. While comprehensive implementation guidance materials will lessen this burden, it is critical that EPA also allocate additional funding to ensure air agencies do not have to divert resources from essential clean air and public health protection programs that are already stretched.

III. Proposed Changes to the New Source Review Permitting Program

The ACE proposal would significantly change the New Source Review (NSR) permitting program as it applies to modifications at existing EGUs. It would create a preliminary applicability test for EGUs whereby a project would not trigger NSR unless it would increase the unit's hourly emissions rate (currently, NSR is triggered if a project would result in an annual emissions increase, measured in tons per year). Adoption of the hourly emissions increase test would be optional for states with their own SIP-approved NSR permitting programs, but the provision would be mandatory for permitting authorities exercising delegated authority on behalf of EPA, to EPA-issued permits, and to state and local programs that incorporate the federal permitting rules by reference.

Notably, the hourly test, where adopted, would apply to *all* EGUs, not just those that make heat rate improvements to comply with the ACE rule. Effectively, the rule would serve as a vehicle for driving larger-scale NSR reform. Approaching NSR reform in this fashion is confusing and arguably contrary to the intent of the Clean Air Act and the NSR program as designed. In order for state and local agencies, regulated entities and the public to fully consider and comment on NSR reform options, they should be accomplished in free-standing rulemakings.

We stated in our comments on the CPP replacement ANPRM that “the NSR program should not be relaxed, and no exemptions should be created, to allow facilities to undertake efficiency-improvement policies that significantly increase emissions without undergoing NSR permitting.”⁷ This proposal could enable EGUs to increase their annual and lifetime emissions of air pollutants while avoiding review by air pollution control agencies.

⁷ See *supra* note 1.

Under an hourly emissions increase test, coal-fired plants that undertake modifications and increase their hours of operation could increase their annual emissions of criteria pollutants and air toxics such as mercury (and, for that matter, CO₂) without conducting local air quality analyses, installing updated pollution controls, and in nonattainment areas, obtaining emission offsets. Even if there are system-wide emissions decreases, localized increases may still occur – as EPA acknowledges.⁸ An hourly test would also allow for older, higher-polluting coal-fired EGUs to undertake life extension projects that increase their overall lifetime emissions of harmful pollution. These potential emission increases would be avoided with an NSR trigger based on actual annual increases measured in tons per year.

In addition to the concerns outlined above, state and local air agencies face potential harms from the ACE proposal's NSR provisions that are particular to them. First, if EGUs are modified without conducting local air quality analyses, agencies will not be able to demonstrate, on the record, that air quality standards are being met and public health and the environment are protected (and indeed, they may not be, if the facility is able to increase its annual emissions). Second, by allowing for increases in annual emissions of criteria pollutants, the proposed rule may interfere with the ability of state and local agencies to develop plans to achieve and maintain the National Ambient Air Quality Standards and protect the PSD increments.

Making the NSR hourly emissions increase test optional for states for SIP-approved permitting programs does not resolve some states' concerns regarding interstate transport. Any increase in criteria pollutant emissions from upwind states may negatively affect downwind states. And finally, many agencies are subject to state laws providing that their air programs can be “no more stringent” than the federal rules. This could create litigation risk in such states if they do not adopt the hourly test.

IV. EPA's Regulatory Impacts Analysis

A. Accounting for Co-Benefits

EPA's Regulatory Impact Analysis (RIA) for the proposed ACE rule relies on three approaches to assess co-benefits. In addition to a PM_{2.5} co-benefit analysis consistent with a longstanding EPA practice to account for adverse health impacts at all exposure levels, EPA includes two newer approaches that assume zero health benefits for PM_{2.5} concentrations below the PM_{2.5} NAAQS and for PM_{2.5} concentrations below the “lowest measured level” threshold as defined in certain health studies. Both of these newer approaches improperly value the health benefits of air quality regulations, and should not be used in this RIA.

State and local air pollution control agencies are responsible for administering many different Clean Air Act programs and for achieving their regulatory, health and environmental goals. Because air pollution standards are set separately across multiple Clean Air Act programs and single out different types of pollutants and sources, regulation of a single pollutant or source category can have a large impact on the ability of state and local air agencies to meet other Clean

⁸ See, e.g., 83 Fed. Reg. at 44,781 (“it is possible that some individual units may experience an increase in annual emissions due to increases in operation”).

Air Act requirements. A rigorous assessment of the co-benefits and impacts of the proposed ACE rule is essential to help air agencies plan for compliance with the full set of their Clean Air Act obligations.

Recent scientific studies⁹ contradict the RIA's assumption that low PM_{2.5} exposures have zero negative health impacts below the thresholds EPA identifies. One study published in June 2017 examined the impacts of air pollution on more than 60 million Medicare recipients and found that long-term exposure to PM_{2.5} at levels below the NAAQS increased the risk of premature death.¹⁰ Another study published in December 2017 found that even short-term PM_{2.5} exposure at levels below the NAAQS increased the risk of premature death among the elderly.¹¹ Both studies, which find disproportionately large health impacts from PM_{2.5} exposure to low-income and minority populations, contradict the RIA's assumptions that the health harms from PM_{2.5} discontinue below this exposure limit.

EPA's truncated assessments of PM_{2.5} benefits should not be included in the proposed ACE rule's RIA, nor should they be applied to other EPA rulemakings. EPA's traditional accounting approach remains the best approach to assess the health benefits from PM_{2.5} reductions.

B. Projected Impacts

NACAA's comments on the ANPRM addressed the so called "rebound effect," expressing concerns that a rule that relied solely on HRI as BSER and changed NSR requirements could overall increase CO₂ and criteria pollutant emissions. EPA's impacts analysis indicates that the proposed ACE rule offers a small net national emissions benefit at the cost of emissions increases at many facilities in states across the country.

The proposed ACE rule's impacts relative to EPA's "No CPP Alternative" scenario show a modest decrease in CO₂ emissions nationally, and according to EPA's IPM modeling of the proposed ACE rule,¹² by 2030 the proposal will lead to CO₂ emissions increases in 18 states, SO₂ emissions increases in 19 states, and NO_x emission increases in 20 states.

In addition to the potential negative health and environmental impacts of these emissions increases, they may make it harder for some areas to come into attainment and for other areas to avoid non-attainment status. EPA's projected increases also threaten to erase emissions reductions that are already being relied on in many good neighbor state implementation plans.

⁹ Qian Di et al., *Air Pollution and Mortality in the Medicare Population*, New England Journal of Medicine, (June 29, 2017) and Qian Di et al., *Association of Short-term Exposure to Air Pollution With Mortality in Older Adults*, Journal of the American Medical Association (Dec. 26, 2017).

¹⁰ *Id.*

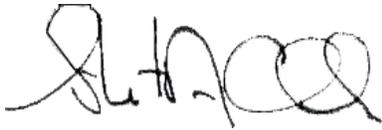
¹¹ *Id.*

¹² See <https://www.epa.gov/airmarkets/analysis-proposed-ace-rule> and Amelia T. Keyes, Kathleen F. Lambert, Dallas Burtraw, Jonathan J. Buonocore, Jonathan I. Levy, and Charles T. Driscoll, *The Affordable Clean Energy Rule and the Impact of Emissions Rebound on Carbon Dioxide and Criteria Air Pollutant Emissions* (in review). Manuscript available from authors. (keyes@rff.org)

It may even be the case that the mixed emissions picture painted by the RIA is optimistic. The modeling conducted by EPA relies on assumptions that do not consider significant features of the proposed ACE rule. One key feature of the proposed ACE rule would allow EGUs to avoid emissions control requirements based on “remaining useful life” and other considerations. And yet in all cases, the modeling optimistically assumes a uniform heat rate improvement across all affected EGUs. The RIA also does not consider implications of the NSR reform proposal, which applies to all power plants, not just EGUs that undertake HRI measures to comply with the proposed ACE rule.

We appreciate this opportunity to submit comments, and urge EPA to address the issues they raise as EPA considers whether to finalize the ACE proposal. Please feel free to contact any of us or Phil Assmus and Karen Mongoven, NACAA Senior Staff Associates, if you have any questions.

Sincerely,



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