ADVANCED ENERGY BUYERS GROUP

the policy voice of advanced energy purchasers

October 31, 2018

Acting Administrator Andrew R. Wheeler
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C., 20460

RE: Affordable Clean Energy Rule (EPA-HQ-OAR-2017-0355)

Dear Acting Administrator Wheeler,

The Advanced Energy Buyers Group (AE Buyers Group) appreciates the opportunity to submit feedback[1] on the Environmental Protection Agency's (EPA) proposed emission guidelines for greenhouse gas emissions, the "Affordable Clean Energy" rule ("ACE Proposal" or "Proposed Rule").[2]

The business-led AE Buyers Group represents the needs and interests of companies across a range of market sectors, including technology, retail, manufacturing, and education. Our comments on the ACE Proposal reflect our role as both major electricity consumers—who will bear the cost of any price increases resulting from ACE implementation—and as companies that have significant experience reducing our own electricity-related carbon emissions in a way that serves our business needs and our bottom line. The AE Buyers Group opposes the costly and disruptive command-and-control approach that EPA has taken in the ACE Proposal, and instead encourages a market-based approach that fosters innovation and relies on technology-neutral, competitively-sourced emission reductions. Such an approach would better serve all electricity customers, and would be more consistent with our own efforts to increase our use of clean and affordable energy.

ABOUT THE ADVANCED ENERGY BUYERS GROUP

The Advanced Energy Buyers Group is a business-led coalition of large energy users engaging on policies to expand opportunities to procure energy that is secure, clean, and affordable.

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[1] These comments represent the consensus view of the Advanced Energy Buyers Group (https://www.advancedenergybuyersgroup.org/). However, this document does not necessarily the reflect the position of any individual member of the AE Buyers Group, and these comments should not be attributed to any company or companies participating in the AE Buyers Group.

[2] 83 Fed. Reg. 44,746 (Aug. 31, 2018).

Members of the Buyers Group are market leaders and major employers spanning different industry segments, including technology, retail, and manufacturing.

We share a common interest in expanding our use of advanced energy, such as renewable energy like wind, solar, geothermal, and hydropower; demand-side resources like energy efficiency, demand response, and energy storage; and onsite generation from solar photovoltaics, advanced natural gas turbines, and fuel cells. Our use of advanced energy technologies and services has made our companies more competitive, our operations more resilient, and our footprints more sustainable—addressing the needs and preferences of key stakeholders, including our employees, customers, boards, and investors. Our companies are among the 71% of Fortune 100 companies and 43% of Fortune 500 companies that have established renewable and/or climate targets as part of our corporate sustainability commitments.[3]

In 2017, members of the AE Buyers Group totaled over $1 trillion in revenue and collectively consumed over 18 terawatt hours (TWh) of electricity, including over 11 TWh of renewable electricity—equivalent to the electricity sales for the states of North Dakota and Delaware, respectively.

COMMENTS

The AE Buyers Group is extremely concerned that the ACE Proposal would increase electricity costs and disrupt electricity markets with limited impact on greenhouse gas emissions, which it is intended to regulate. The AE Buyers Group encourages EPA to reject the command-and-control regulatory approach of the ACE Proposal and instead embrace a technology-neutral policy that draws upon market-based approaches to deliver emission reductions at the lowest possible cost to consumers and with minimal impact on efficient market function. The AE Buyers Group's comments are organized as follows:

I. The AE Buyers Group is concerned that the ACE Proposal and EPA's proposed revisions to the "New Source Review" program will raise costs and disrupt electricity markets;

II. The AE Buyers Group is concerned that the ACE Proposal will disrupt our future renewable energy projects; and

III. The AE Buyers Group recommends technology-neutral, competitive, market-based approaches to meet EPA's obligation to regulate greenhouse gasses in the power sector.

These comments are explained in more detail below.

I. The AE Buyers Group is concerned that the ACE Proposal and EPA's proposed revisions to the "New Source Review" program will raise costs and disrupt electricity markets, with limited impact on the emissions EPA seeks to regulate.

[3] Advanced Energy Economy, *2016 Corporate Advanced Energy Commitments* (December 2016) https://info.aee.net/growth-in-corporate-advanced-energy-demand-market-benefits-report.

As companies that will ultimately pay for any increases in electricity prices as a result of ACE implementation, Buyers Group members have concerns regarding the impacts of the ACE rule on electricity costs and market function as a result of the approach EPA has taken to setting the "Best System of Emission Reduction" (BSER) and establishing obligations for states. Specifically, EPA has identified a limited list of "heat rate improvement" options to improve the efficiency of coal-fired electric generating units. States are then given responsibility for establishing emission limitations, and units must implement heat rate improvements to meet unit-specific requirements as established by states. The AE Buyers Group is concerned by this approach for several reasons.

1. **ACE will produce unnecessary cost increases and market disruptions as a result of its narrow focus on heat rate improvements.**

The singular focus on heat rate improvements in the ACE Proposal is very limiting, and will almost certainly increase costs for consumers. By compelling coal-fired power plants to make heat-rate improvements that they have not otherwise chosen to undertake, state implementation of the ACE proposal would require investments that, by EPA's own analysis, would result in higher costs. Under the Agency's less expensive heat rate improvement scenario (in which a fleet-wide 4.5% heat rate improvements is achievable at a cost of $50/kW), total power system costs would be approximately $4.9 billion higher in 2025 and approximately $8.4 billion higher in 2030 relative to a base case scenario of Clean Power Plan compliance allowing for use of energy efficiency.[4] Under a costlier scenario (in which a fleet-wide 4.5% heat rate improvement is possible at a cost of $100/kW), total power system costs would be approximately $6.1 billion higher in 2025 and $9.5 billion higher in 2030, relative to the same base case. As electricity consumers, members of the AE Buyers Group will pay for these cost increases resulting from the heat rate improvements mandated by the ACE rule.

ACE would also disrupt the relative cost-effectiveness of different generating units, creating distortionary effects in the market. Even though they may not otherwise be considered prudent or cost-effective investments, heat rate improvements implemented as a result of the ACE rule would make coal-fired power plants more efficient. This could result in higher dispatch of these units than would have otherwise occurred, pushing otherwise less expensive alternatives out of the market while reducing opportunities for new entrants into the market. Furthermore, the capital investments that units make to meet ACE requirements would give generators an incentive to continue running these plants as long as possible in order to recoup sunk costs, further disrupting efficient market function and harming electricity customers.

2. **EPA's proposed narrowing of the New Source Review Program for power plants will exacerbate the adverse impacts of the ACE Proposal.**

EPA's proposed changes to the New Source Review (NSR) exacerbate concerns regarding the cost and market impacts of the ACE Proposal. EPA acknowledges in the ACE Proposal that its

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[4] EPA, Analysis of the Proposed ACE Rule, available at https://www.epa.gov/airmarkets/analysis-proposed-ace-rule.

focus on heat rate improvements as the sole method to reducing carbon dioxide emissions from existing power plants could result in triggering New Source Review (NSR) and concomitant pollution controls.[5] Specifically, EPA notes that for units subject to ACE, "the potential requirement to undertake a HRI [heat rate improvement] to satisfy 111(d) may result in substantial time, effort, and money to comply with the requirements of major NSR."[6] EPA further acknowledges that "the potential need to permit so many of the projects being required under a 111(d) plan could substantially increase the burden for permit agencies in processing permit applications."[7]

Rather than recognizing these perverse outcomes as a reflection of the shortcomings of its singular focus on heat rate improvements, EPA has chosen to pursue a proposal to narrow NSR applicability. Importantly and troublingly, the changes proposed here would apply to all future modifications at power plants—not just those that result from the ACE proposal.[8]

Specifically, EPA proposes to insert an additional step in the test for NSR applicability that would exempt a power plant undergoing a physical or operational change from NSR if its *hourly* emissions do not increase, even if its *annual* emissions do increase.[9] Conversely, even if its hourly emissions increase, a plant might still evade NSR if its annual emissions do not increase.[10] Thus, the only way a plant could trigger NSR under the ACE Proposal would be for both the plant's annual *and* hourly emissions to increase.

The AE Buyers Group is concerned by the impacts this narrowing of NSR will have in electricity markets, exacerbating the concerns raised in the previous section. Specifically, by exempting units that undertake modifications from preconstruction permitting and pollution-control requirements, EPA would place these older units at an advantage compared to new, cleaner units that are required to undergo preconstruction permitting. In addition, the increased fuel efficiency of these modified units may also allow them to outcompete marginal generation resources in dispatch on the grid and extend their lives beyond those of other existing sources, such as aging nuclear power plants.

The implications of this change could be far-reaching. EPA notes that "80 percent of non-retiring coal-fired units have emissions rates for NO_x and SO_2 at levels that exceed those typically required under NSR."[11] EPA has not attempted to analyze the potential perverse effects of its proposed narrowing of the NSR program on the normal functioning of the electricity market.

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[5] *See* 83 Fed. Reg. at 44,775 ("[C]oncerns regarding the applicability of NSR take on even greater significance and may not be as easily avoided in the context of this proposed rule, which constrains the compliance options available in the CPP to within-the-fenceline measures and may therefore more directly result in individual sources making HRIs.").

[6] *Id.* at 44,776.

[7] *See id.*

[8] 83 Fed. Reg. at 44,778.

[9] 83 Fed. Reg. at 44,780 & Table 5.

[10] *See id.*

[11] *See* 83 Fed. Reg. at 44.

3. **The lack of a nationally-established emission limitation will create an uneven playing field and distort multi-state electricity markets.**

The lack of a nationally-established BSER and emission limitation will create a patchwork of different emission limitations for different states and for individual units within each state. Our companies fully appreciate and understand that states are under pressure from businesses and residential consumers to keep electricity rates low—doing so puts them at a competitive advantage. Placing the burden on states to identify a best system of emission reduction for each plant and develop their own emission limitations will therefore create a "race to the bottom" by incentivizing states to adopt minimally stringent limitations. Given the interconnected nature of the electricity system, with many individual units connected to multi-state markets or serving vertically-integrated utilities that span several states, the lack of an EPA-identified emission limitation will create an uneven playing field, increase uncertainty, and disrupt efficient market function.

At the same time, the lack of a nationally-established BSER and emission limitation will also put state plans at risk of lawsuits from groups arguing that states have not gone far enough (or have gone too far) to address greenhouse gas emissions. In failing to provide states with any guidance as to the statutorily required emission reductions, EPA has burdened them with legal risk they do not want or need, and introduced additional uncertainty into the market.

4. **The ACE Proposal is unlikely to deliver significant results.**

Despite its costs and drawbacks, the ACE Proposal is unlikely to have a significant impact on emission outcomes—and could actually increase emissions. By EPA's own admission, the majority of emission reductions under ACE will result from business-as-usual activity, meaning that the increased costs and market disruptions imposed by ACE will have minimal benefit—if any—in reducing the pollutant EPA seeks to address through this proposal. A regulation with significant costs and with no or minimal benefit cannot be considered good policy, and should not be finalized.

II. The AE Buyers Group is concerned that the ACE Proposal will disrupt our future renewable energy projects and disproportionately harm states and companies that have taken action already to reduce emissions.

As noted above, members of the AE Buyers Group, along with other U.S. based companies, have contracted for over 13 GW of renewable energy since 2013. Our companies have pursued these renewable energy projects, as well as other advanced energy technologies and services, because doing so makes business sense.

Specifically, our companies are actively managing energy portfolios that include onsite and offsite renewable energy, energy efficiency, demand response, energy storage, and more, in an effort to (i) reduce costs; (ii) provide cost control and stability; (iii) improve our operational resilience; and (iv) cost-effectively deliver on our sustainability goals to meet the requirements and preferences of investors, board, employees, customers, communities, and other stakeholders.

Given the results we have seen to date, our companies intend to continue pursuing renewable and other advanced energy options to meet our energy needs.

However, the ACE Proposal threatens to disrupt this market activity. For all the reasons above, the AE Buyers Group is concerned that the ACE rule will disrupt efficient market function and disproportionately advantage existing coal-fired units. Specifically, the ACE rule would enable such units to recover the cost of investments that will make them more competitive by improving their fuel efficiency, but that would not have been considered prudent in the absence of the ACE rule. The distortionary effects of this market intervention will make it harder for other resources—including our future renewable energy projects—to compete in the market; importantly, this effect is likely to vary by state, and the magnitude of the potential impact will not be known until several years from now when states develop implementation plans.

Furthermore, the ACE proposal would effectively force entities that have taken action to reduce emissions—including some states, and companies such as ours—to pay twice for emission reductions. For our companies, we paid once as utility customers for state-based programs to boost low-carbon resources or reduce emissions and through our own proactive emission reduction efforts, and under ACE we would pay again because the proposal does not acknowledge actions already taken and requires utilities to make separate heat rate improvement investments that will also fall back to us as ratepayers. This outcome is both damaging and unnecessary. To avoid harming entities that have taken action to reduce emissions, EPA should instead seek to develop a regulatory approach that works with, rather than overrides, actions already taken and programs already in place. This is particularly important given that, as noted above, the majority of emission reductions anticipated during the ACE implementation period will come from business-as-usual activity, i.e., will result from market activity and from proactive state and customer efforts to reduce greenhouse gas emissions.

III. The AE Buyers Group recommends a technology-neutral, competitive, market-based approach to meet EPA's obligation to regulate greenhouse gasses in the power sector.

Despite our objections to the ACE Rule as proposed, the AE Buyers Group recognizes that EPA faces an obligation to regulate greenhouse gasses from the power sector. From our own experience, the AE Buyers Group has found that a technology-inclusive approach is the best way to reduce costs, lower risk, and achieve maximum benefit while also achieving the goal of reduced emissions.

In realizing these benefits, our companies have taken advantage of the integrated nature of the electric grid and the interchangeable nature of electricity to reduce emissions in our operations by switching to low- and zero- carbon generating resources. Market trends strongly support the role of low- and zero-emitting resources—especially efficient natural gas combined cycle units and low-cost wind- and solar-powered renewable energy—in lowering overall grid emissions. Our companies have made use of these lower-cost resources through direct long-term contracts, financial contracts, renewable energy certificate (REC) purchases, utility programs, onsite installations, and more—all options that are widely available and well proven. Utilities and independent power producers arguably have even more flexibility than our companies to reduce

utilization of higher-emitting sources and access low-emitting resources through a range of different contract and market structures.

We recommend a similar approach on a national scale that our companies have taken on an enterprise scale. Specifically, we recommend that EPA withdraw the ACE Proposal and instead issue a rule that acknowledges and enables the deployment of the full range of technologies and services available to reduce emissions, and that makes use of market-based competition to deliver emission reductions at lowest cost.

Market-based solutions are possible under either mass-based or rate-based emission standards, and can be deployed regionally or even nationally. Market-based and technology-neutral approaches do not mandate specific investments or specific actions by individual units, but rather enable existing technologies to compete on the basis of cost and performance while encouraging future cost reductions and development of new innovations. Perhaps most importantly, market-based approaches are compatible with existing markets, avoiding the distortionary and disruptive effects of the ACE Proposal, as described above.

The AE Buyers Group therefore encourages EPA to take into account the availability of numerous low- and zero- carbon generating resources and to take a market-based approach to regulating carbon, allowing technologies and services to compete on a technology-neutral basis to deliver the required emission limitations. This is the approach that we have taken as businesses because it has allowed us to meet our emission reduction goals without sacrificing on cost or performance, and while strengthening our businesses.

CONCLUSION

The Advanced Energy Buyers Group recommends that EPA recall the ACE Proposal due to the ineffectiveness of its narrow, command-and-control approach, and replace it with a regulation that reflects market trends and is aligned with the full range of cost-effective tools and technologies that reduce emissions. A regulation that allows market-based compliance and that harness competition and innovation will maximize benefits while minimizing costs to consumers. We appreciate your consideration of our perspective on this proposal.

Sincerely,

The Advanced Energy Buyers Group
http://www.advancedenergybuyersgroup.org