



October 31, 2018

**Attn: Docket ID No. EPA-HQ-OAR-2017-0355**

U.S. Environmental Protection Agency  
EPA Docket Center  
Mail Code 28221T  
1200 Pennsylvania Avenue NW  
Washington, D.C. 20460

**RE: Comments of the Large Public Power Council on the Proposed Affordable Clean Energy Rule, Docket ID No. EPA-HQ-OAR-2017-0355**

Dear Sir or Madam:

The Large Public Power Council (LPPC) appreciates the opportunity to comment on the U.S. Environmental Protection Agency's (EPA or Agency) revised emission guidelines for electric utility generating units (EGUs). Known as the Affordable Clean Energy (ACE) Rule, this proposed rule would establish a Federal-State framework for regulating carbon dioxide (CO<sub>2</sub>) emissions from fossil-fueled EGUs pursuant to section 111(a) and 111(d) of the Clean Air Act (CAA).<sup>1</sup> LPPC also is providing comment on EPA's proposed revisions to the Emission Guideline Implementing Regulations as well as the New Source Review (NSR) Program, both of which are part of the same regulatory proposal package as the ACE Rule.

Founded in 1987, the LPPC is comprised of 26 of the nation's largest public power systems, providing power to most of the 45 million people served by public power. LPPC has been closely involved in the major EPA rulemakings affecting the power generation sector, and remains focused on working with the Agency to ensure the continued delivery of reliable, low-cost electricity while protecting the environment. LPPC member utilities own and operate more than 86,000 MW of diverse generation capacity, a large portion of which will be greatly affected by this rulemaking.

## **I. EXECUTIVE SUMMARY**

LPPC is committed to working with the Agency to establish an effective and workable regulatory program for limiting CO<sub>2</sub> emissions from the electric power sector under

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<sup>1</sup> 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).

### **LARGE PUBLIC POWER COUNCIL MEMBER COMPANIES**

Austin Energy / Chelan County PUD No.1 / Clark Public Utilities / Colorado Springs Utilities / CPS Energy / ElectricCities of NC, Inc. / Grand River Dam Authority  
Grant County PUD / Imperial Irrigation District / JEA / Long Island Power Authority / Los Angeles Department of Water & Power / Lower Colorado River Authority  
MEAG Power / Nebraska Public Power District / New York Power Authority / Omaha Public Power District / Orlando Utilities Commission / Platte River Power Authority  
Puerto Rico Electric Power Authority / SMUD / Salt River Project / Santee Cooper / Seattle City Light / Snohomish County PUD No.1 / Tacoma Public Utilities

section 111(d) of the CAA. To that end, we are submitting the following comments on EPA's proposed ACE Rule, the revised implementing regulations, and the proposed NSR Program reforms – focusing on ways that EPA can make these regulatory provisions more functional, cost-effective, and better aligned with the requirements of the statute.

It should be noted that a number of the LPPC members have major concerns with EPA limiting the scope of the ACE Rule to only inside-the-fence measures.<sup>2</sup> Notwithstanding a difference in our members' views on this one legal issue, LPPC has collectively worked together to develop comments focused on the workability of the rule and its impacts on the cost and reliability of electric service. A brief summary of the LPPC comments presented below include the following:

- The proposed emission guidelines correctly seek to focus regulation on those EGUs where the proposed candidate technologies have the potential to be “most impactful” and thereby yield the most cost-effective CO<sub>2</sub> emission reductions. Although LPPC generally agrees with this approach, we urge EPA to clarify that the guidelines should apply to only coal-fired electric steam generating units and not those oil- or gas-fired steam generating units that would likely yield minimal CO<sub>2</sub> emission reductions at very high costs.
- EPA's proposed implementing regulations preserve state discretion when setting performance standards for affected units and allow states, as required by statute, to consider unit-specific factors, such as the remaining useful life of the unit. The implementing regulations also allow states to retain the authority to adjust the stringency of the performance standards based on site-specific factors. EPA should not restrict, however, the determination by the states to employ market-based programs (*e.g.*, averaging and trading) when developing state plans. EPA also should preserve a state's ability to select whether a net or a gross output-based standard is most appropriate for affected units within its borders.
- The revised timeframes in the revised implementing regulations are more workable for the state planning and implementation process contemplated by section 111(d); however, sources should have twenty-four months from EPA plan approval allotted for compliance.
- EPA's proposed NSR reforms should improve the workability of the ACE Rule and are appropriately broad given that these critical reforms are targeting physical and operational changes impacting all pollutants at EGUs in the source category and not just those undertaken to comply with state performance standards.

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<sup>2</sup> A number of LPPC members strongly believe that EPA has the authority to set state CO<sub>2</sub> performance standards based on beyond-the-fence measures and urge EPA to implement the Clean Power Plan or other such CAA-regulatory program under CAA section 111(d) based on measures that can be achieved beyond the fence-line of the power plant. These members are: Austin Energy, Long Island Power Authority, Los Angeles Department of Water and Power, New York Power Authority, Sacramento Municipal Utility District, Seattle City Light, Snohomish County Public Utility District No. 1, and Tacoma Public Utilities.

The following detailed comments provide EPA with recommendations that will help the states and affected units reduce CO<sub>2</sub> emissions in the most cost-effective and efficient means possible while adhering to the direction of Congress in section 111(d).

## **II. LPPC COMMENTS ON PROPOSED ACE EMISSION GUIDELINES AND IMPLEMENTING REGULATIONS**

### **A. ACE Rule Properly Excludes CTs and NGCC Units**

As proposed, the ACE Rule would regulate only fossil-fueled electric steam generating units (EGUs) that were in operation or had commenced construction as of August 31, 2018, and that serve a generator capable of selling greater than 25 MW to a utility power distribution system and have a base load rating greater than 250 MMBtu/h heat input of fossil fuel (either alone or in combination with any other fuel).<sup>2</sup> Integrated gasification combine cycle units are excluded from coverage in the rule. In addition, EPA is proposing to exempt, at this time, simple cycle combustion turbines (CT), as well as combustion turbines and steam turbines at natural gas combined cycle (NGCC) units.<sup>3</sup> EPA explains that available emission reductions at these types of units would likely be too expensive or would likely provide only small overall reductions compared to HRI projects undertaken at steam generating units.<sup>4</sup>

LPPC supports EPA's proposal to regulate only fossil-fueled electric steam generating units but requests that EPA clarify that an affected electric generating unit covered by the ACE Rule includes only coal-fired steam generating units and excludes natural gas- and oil-fired steam generating units. There is a small number of oil- and gas-fired steam generating units in the U.S. and they usually have low capacity factors, making it difficult to justify costly heat rate improvements (HRIs).

LPPC also agrees that both simple cycle and NGCC units should be excluded from the rule given that HRIs for those types of generating facilities are extremely costly and the resulting CO<sub>2</sub> emissions reductions would be minimal. EPA's approach recognizes how difficult it is to achieve cost-effective CO<sub>2</sub> emission reductions by performing HRI projects for CTs and NGCCs in light of the high cost and the limited potential improvements such projects provide. This is not necessarily the case with coal-fired steam generating units, as a source category, where there are generally available equipment upgrades and new technologies (in addition to enhancements in operation and maintenance practices) that can achieve meaningful CO<sub>2</sub> emission reductions at reasonable cost levels depending on the particular unit and individual circumstances.

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<sup>2</sup> 83 Fed. Reg. at 44,754.

<sup>3</sup> 83 Fed. Reg. at 44,754.

<sup>4</sup> 83 Fed. Reg. at 44,761.

## **B. The ACE Rule Has Established a Workable Federal-State Construct For Setting CO<sub>2</sub> Performance Standards**

The proposed ACE Rule establishes a Federal/State construct wherein EPA defines the best system of emission reduction (BSER) and sets out general guidelines without prescribing numeric emission limits or performance levels.<sup>5</sup> It is then the role of the states to establish performance standards for affected units covered by the ACE Rule based on EPA's guidance.<sup>6</sup> LPPC supports the approach outlined in the EPA proposal, which gives states the lead role in setting CO<sub>2</sub> performance standards and limits EPA's role to providing a general framework and technical information for states.

The Federal/State construct EPA uses in the proposed ACE Rule is a workable framework that is clearly authorized under CAA section 111(d), which requires “a procedure similar to that provided by section 110 [relating to state implementation of National Ambient Air Quality Standards] of this title under which each State shall submit to the Administrator a plan which (A) establishes standards of performance . . . (B) provides for the implementation and enforcement of such standards of performance.”<sup>7</sup> Congress was clear that states have the lead role in establishing the standards of performance under section 111(d) as well as the implementation of such standards. Indeed, where Congress intended for EPA to take the lead role in the establishment of standards, the statute was worded accordingly. This can be seen in section 111(b), the provision applicable to standards of performance for new sources, which specifically requires EPA itself to list categories of sources and set the standards of performance for new sources.<sup>8</sup>

EPA's proposed approach in the ACE Rule retains the Federal/State construct in section 111(d) and recognizes the role of states in making source-by-source determinations as to the most appropriate performance standard, taking into account a number of factors including the remaining useful life of the facility and cost of compliance. This workable construct preserves the flexibility of states to set performance standards that are tailored to the design, operating conditions, and other circumstances of each affected unit.

## **C. EPA's Proposed BSER Determination Focuses on the Most Impactful Efficiency Improvements for Reducing CO<sub>2</sub> Emissions**

EPA determined that BSER consists of onsite HRI measures that can be undertaken at affected units through equipment upgrades and good operating practices. Specifically excluded from EPA's BSER determination are carbon capture utilization and storage (CCUS) technologies and co-firing with natural gas or biomass. LPPC agrees that a

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<sup>5</sup> 83 Fed. Reg. at 44,755.

<sup>6</sup> 83 Fed. Reg. at 44,755.

<sup>7</sup> 42 U.S.C. § 7411(d)(1).

<sup>8</sup> 42 U.S.C. § 7411(b)(1).

BSER determination based on HRI measures is an effective and workable approach for cost-effectively reducing CO<sub>2</sub> emissions from affected EGUs. HRI projects improve the efficiency of a unit, which in turn reduces emissions of CO<sub>2</sub>. Other options considered by EPA would essentially redefine the source (*i.e.*, co-firing with low-carbon alternative fuels), are not yet adequately demonstrated, or are cost-prohibitive.

When setting BSER, section 111(a)(1) requires EPA to consider those “systems of emission reduction” that are “adequately demonstrated” for the source category and then requires EPA to evaluate those systems to determine which is “best” while considering cost and “nonair quality health and environmental impact and energy requirements.”<sup>9</sup> The statute does not provide any guidance to EPA as to how to weigh these factors but the courts have deferred to EPA’s discretion when balancing these various factors while observing that BSER needs to consider technologies that are reasonably reliable, feasible and not exorbitant in cost.<sup>10</sup>

EPA’s selection of the most impactful HRI measures clearly fits with the requirements in section 111(a)(1). Heat rate is a measure of efficiency commonly used in the power sector.<sup>11</sup> Given that heat rate is the amount of energy input required to generate a kilowatt-hour of electricity (kWh), the lower the heat rate, the more efficiently the unit operates. Thus, there is a direct correlation between lowering the heat rate and lowering the amount of fuel consumed by a unit and ultimately, the CO<sub>2</sub> emitted by the unit. EPA’s selection of the most impactful HRI measures ensures that the list is comprised of measures that are considered to be the “best system[s] of emission reduction” that are “adequately demonstrated” as required by section 111(a)(1).

The costs associated with HRI measures also are reasonable (especially when compared to other systems of emission reduction in the power sector considered by EPA during the proposal development process). As EPA correctly points out, any efficiency improvements will reduce the amount of fuel consumed by the unit.<sup>12</sup> This will result in a lower net cost associated with any HRI project. As for nonair quality health and environmental impacts, energy requirements and other considerations, EPA correctly points out that the candidate technologies included in the list of HRI measures do not significantly increase auxiliary energy demand and do not result in additional effluents or solid by-products.<sup>13</sup>

EPA relied on the earlier determination by the Agency when developing the Clean Power Plan that CCUS should not be part of BSER for existing fossil fuel-fired EGUs due to the

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<sup>9</sup> 42 U.S.C. § 7411(a)(1).

<sup>10</sup> 83 Fed. Reg. at 44,755 n.15.

<sup>11</sup> 83 Fed. Reg. at 44,759.

<sup>12</sup> 83 Fed. Reg. at 44,755.

<sup>13</sup> 83 Fed. Reg. at 44,759-60.

significant expense and inability to be applied at every source.<sup>14</sup> LPPC agrees with EPA’s assessment in light of the direction of section 111(a)(1). As noted above, section 111(a)(1) directs EPA to identify as BSER those emission reduction technologies that are “adequately demonstrated” for existing sources in the source category.<sup>15</sup> EPA also needs to consider the costs of achieving any such reduction.<sup>16</sup> CCUS fails to meet the criteria set forth in the statute: CCUS is not adequately demonstrated and is significantly more expensive than alternative options for reducing emissions.

As for co-firing with alternative low-carbon fuels, EPA expresses concerns regarding fuel availability as well as cost.<sup>17</sup> A number of existing coal-fired EGUs have limited or no access to natural gas. Indeed, some units in rural areas may not have access to natural gas pipeline infrastructure. Other units may have access to natural gas but may be constrained either by existing contracts or physical infrastructure as to whether the offtake of natural gas can be increased sufficiently to co-fire with natural gas in the necessary amounts on an annual basis. In addition to the supply challenges, EPA notes that using natural gas in boilers is not the most efficient and best use for natural gas as compared to high efficiency NGCC units with much lower heat rates.<sup>18</sup> In light of these challenges and concerns, as well as the criteria in section 111(a)(1) as to what BSER requires, LPPC agrees that co-firing with natural gas would not be an appropriate choice for BSER.

Furthermore, EPA’s well-established policy against redefining the source also argues against employing co-firing of natural gas or biomass as BSER. While this policy originates from EPA’s Prevention of Significant Deterioration (PSD) Program for permitting new sources and significant modifications, EPA is correct in its assessment in the preamble that the application of this policy in the section 111(d) context makes sense. EPA notes that 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.”<sup>19</sup> EPA’s decision to eliminate those emission reduction technologies that focus on changing an EGU’s fuel is appropriate in light of the Agency’s long-standing policy against redefinition of the source.

Given the issues and concerns with the alternative technologies considered by EPA, HRI measures present the best technology option for achieving cost-effective CO<sub>2</sub> emissions reductions from the EGU source category in an efficient and workable manner. That

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<sup>14</sup> 83 Fed. Reg. at 44,761.

<sup>15</sup> 42 U.S.C. § 7411(a)(1).

<sup>16</sup> 42 U.S.C. § 7411(a)(1).

<sup>17</sup> 83 Fed. Reg. at 44,762.

<sup>18</sup> 83 Fed. Reg. at 44,762.

<sup>19</sup> 83 Fed. Reg. at 44,753.

said, it is important to point out that both the statute<sup>20</sup> and the proposed implementing regulations give states the option to adopt or enforce standards of performance that are more stringent than the federal requirements<sup>21</sup> and sources retain the flexibility to use non-BSER technologies to meet any performance standards that states may adopt.<sup>22</sup>

#### **D. EPA’s List of Candidate Technologies Representing BSER Is Helpful Guidance for States Developing Performance Standards**

EPA identifies a list of HRI technologies as the BSER and includes a proposed list of “candidate technology” HRI measures that states should use in establishing standards of performance in the required state plans.<sup>23</sup> EPA claims that the list of candidate technologies includes the “most impactful measures,” which are as follows: neural network/intelligent sootblowers, boiler feed pumps, air heater and duct leakage control, variable frequency drives, blade path upgrade (steam turbine), redesign/replace economizer, and improved operating and maintenance practices.<sup>24</sup>

EPA’s rationale for why a definitive list of candidate technologies is necessary is a sound one. EPA correctly recognizes that the large number of potential HRI measures could be burdensome for states to evaluate when developing performance standards for affected units.<sup>25</sup> Also, LPPC agrees that guidance from EPA in the form of a list of the most impactful measures is helpful considering some HRI measures may have limited applicability or negligible improvement in heat rate.

It is important to point out that several of the candidate technologies only improve net heat rate efficiency of an affected EGU, and thus have no effect of the unit’s gross heat rate. Those technologies are boiler feed pumps and variable frequency drives. As a result, it would not be appropriate for states to consider these two HRI measures in setting gross output-based performance standards since they do not impact the affected EGU’s gross heat rate.

#### **E. States Should Have Discretion to Select Gross or Net Emission Rate**

EPA proposes an allowable emission rate (*e.g.*, rate-based gross standard: lb CO<sub>2</sub>/MWh gross) in the ACE Rule as the form of the standard that states should set when developing

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<sup>20</sup> See 42 U.S.C. § 7416 (Section 116 of the CAA).

<sup>21</sup> 83 Fed. Reg. at 44,765 and 44,805 (proposed § 60.24a(f)(1)). However, it is important to point out that states have the option to establish more stringent emissions requirements only to the extent that state law provides the authority to adopt more stringent requirements.

<sup>22</sup> See 42 U.S.C § 7411(b)(5) (providing that sources are not required “to install and operate any particular technological system of continuous emission reduction to comply with any new source performance standard”).

<sup>23</sup> 83 Fed. Reg. at 44,756.

<sup>24</sup> 83 Fed. Reg. at 44,757 (Table 1).

<sup>25</sup> 83 Fed. Reg. at 44,756.

performance standards for affected units.<sup>26</sup> LPPC agrees with EPA's assessment that an allowable emission rate most closely aligns to EPA's BSER determination of HRI measures. EPA also is requesting comment on whether the emission guidelines should require state implementation of either a gross output-based standard (*i.e.*, CO<sub>2</sub> emitted per unit of gross MWh output) or a net output-based standard (*i.e.*, CO<sub>2</sub> emitted per unit of net MWh output). LPPC recommends that the final ACE Rule should not prescribe an inflexible federal rule but rather allow states to have the choice of setting either a gross or net performance standard, depending on the design, operating conditions and other relevant circumstances of each affected EGU. Furthermore, for whatever type of standard that a state ultimately elects to set for a particular unit, we strongly urge EPA to allow states to apply a multi-year averaging period of at least three years.

There may be situations where a state may prefer to set either a net or a gross standard for a particular affected unit and each form has beneficial aspects. For example, a rate-based gross standard is simpler to monitor and administer and does not penalize owners and operators for installing pollution control equipment. Setting a gross standard also limits the universe of candidate HRI technologies that must be considered, cutting down on the burden imposed on states when developing state plans. On the other hand, while somewhat more complex and costly to implement, a net standard recognizes the improved efficiency from reductions in auxiliary power use. In fact, as noted above, several of EPA's candidate HRI technologies would only impact a net emission rate (*e.g.*, variable frequency drives).

EPA correctly notes that states have discretion to establish different averaging times for affected units.<sup>27</sup> LPPC agrees that this state discretion should be preserved but recommends that EPA specify that states set a multi-year averaging period for affected units. Averaging periods of multiple years are needed to address the variable duty cycles that coal-fired EGUs currently experience. In many cases, coal-fired EGUs are no longer operated as baseload units. Instead, these units are dispatched at intermediate and low levels over the course of the year in response to market demand and other factors. This variability results in considerable fluctuations in the heat rate for these coal-fired units (higher heat rate at low loads and lower heat rate at higher loads) with the corresponding fluctuations in CO<sub>2</sub> emissions (higher CO<sub>2</sub> emissions at low loads with lower CO<sub>2</sub> emissions at higher loads). A multi-year averaging period of at least three years will allow affected units to manage compliance with state performance standards while providing for unusual operating conditions, market fluctuations, and other unexpected circumstances (*e.g.*, extreme weather events).

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<sup>26</sup> 83 Fed. Reg. at 44,764.

<sup>27</sup> 83 Fed. Reg. at 44,769.

**F. The ACE Rule Ensures the Workability of the Standard-Setting Process by Providing State Flexibility to Set Unit-Specific Standards When Appropriate**

The proposed ACE Rule and revised implementing regulations accord states broad discretion when setting performance standards for units that would be included in the rule. The proposed rule would allow states to apply BSER on a unit-by-unit basis or for various categories or groups of affected units within the EGU source category when establishing standards of performance.<sup>28</sup> The program also would allow states to consider other factors when setting performance standards, *e.g.*, remaining useful life of the unit, unreasonable costs, physical impossibility.<sup>29</sup>

LPPC supports the flexibility EPA is proposing to provide under the ACE Rule. Congress gave states the lead role in CAA section 111(d) to establish standards of performance for existing sources. Accordingly, the statute explicitly allows the state, when setting performance standards, to consider the remaining useful life of the unit as well as other factors. Specifically, section 111(d) provides in relevant part: “Regulations of the Administrator under this paragraph shall permit the State in applying a standard of performance to any particular source under a plan submitted under this paragraph to take into consideration, among other factors, the remaining useful life of the existing source to which such standard applies.”<sup>30</sup>

EPA’s approach in the proposed implementing regulations gives states the flexibility to tailor standards of performance to the diverse population of existing coal-fuel fired EGUs. As EPA notes in the preamble, these units are diverse in coal-type, design, size and capacity, cooling systems, emission controls, location and age.<sup>31</sup> States will be able to rely on the information provided by EPA on the degree of emission limitation for the various candidate technologies when setting the standards of performance. Furthermore, states will have the ability to conduct a unit-specific analysis of each HRI technology to assess the technical feasibility, applicability, and HRI potential.<sup>32</sup> During this process, states will have the ability – as directed by the explicit statutory text – to take certain source-specific factors into account such as the remaining useful life when establishing the appropriate standard of performance for a particular unit. EPA’s proposed implementing regulations appropriately reflect the flexibility accorded to states in the CAA.

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<sup>28</sup> 83 Fed. Reg. at 44,764.

<sup>29</sup> 83 Fed. Reg. at 44,763.

<sup>30</sup> 42 U.S.C. § 7411(d) (emphasis added).

<sup>31</sup> 83 Fed. Reg. at 44,755.

<sup>32</sup> 83 Fed. Reg. at 44,763.

### **G. EPA Should Include A “Presumptive Process” for Setting Performance Standards to Reduce Regulatory Uncertainty and Enhance Workability**

As discussed above, EPA is proposing a list of the most impactful HRI measures as BSER. And, while there are a number of other HRI measures considered by EPA, some of those technologies “have limited applicability and many provide only negligible HRI.”<sup>33</sup> For this reason, EPA explains that “it would be overly burdensome to require States to evaluate the degree of emission limitation achievable from the application of every single identified HRI measure – including those with negligible benefits – at each source (or subcategory of sources) within their borders.”<sup>34</sup>

While establishing a defined HRI candidate technologies list, EPA does not provide any guidance on whether states have an obligation to consider HRI measures other than the seven candidate technologies enumerated in Table 1 in the proposed ACE Rule. This silence creates regulatory uncertainty as to whether states have an obligation to consider additional HRI measures or be at risk of having the state plans “second guessed” by third parties and subject to a judicial challenge for failing to consider additional HRI measures that are not on the list.

EPA explains in the preamble its rationale for not establishing a presumptively approvable methodology or formula that states might use for establishing numeric emission limitations that are applicable to affected EGUs.<sup>35</sup> However, to address the concern noted above regarding second guessing by third parties, LPPC urges EPA to establish a “presumptive process” that would provide a “safe harbor” from challenges in those situations where the state considers all of the listed candidate technologies in the ACE Rule when setting the performance standards for the affected units. When following the prescribed process, there would be a presumption that the state has met the regulatory requirements imposed by the ACE Rule to evaluate all available HRI measures if all of the candidate technologies are considered. By making this explicit in the final implementing regulations, EPA will give greater certainty to the states’ evaluation of the candidate technologies as well as affected units that will be required to comply with the performance standards.

### **H. The Implementing Regulations Need to Give States Broad Flexibility to Include Averaging and Trading In State Plans**

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<sup>33</sup> 83 Fed. Reg. at 44,756.

<sup>34</sup> 83 Fed. Reg. at 44,756.

<sup>35</sup> 83 Fed. Reg. at 44,764. EPA notes that “if the Agency were to provide a specific and presumptively-approvable methodology for establishing standards of performance, that approach would provide states with certainty in how to develop plans. EPA is not proposing a specific methodology or formula for establishing standards of performance for existing sources in this action. EPA believes that such a presumptive standard could be viewed as limiting a state’s ability to deviate from the prescribed methodology and that the approach could ultimately be more limiting than helpful.” *Id.*

While EPA provides states with considerable flexibility in setting the performance standards for affected units, EPA constrains state discretion in implementing the standards with regard to averaging and trading among affected units. Specifically, EPA limits emission averaging to affected units located at a single facility.<sup>36</sup> EPA is taking this position due to the Agency’s determination that BSER is predicated on measures that can be implemented at the facility itself.<sup>37</sup> EPA also provides several other arguments as to why averaging should be limited to a single facility. These include a concern about whether real emission reductions would result if averaging is permitted with non-affected EGUs. Another related issue raised by EPA is that NGCC units are not presently in the ACE Rule and how those units factor in must still be determined by EPA.

LPPC does not agree with EPA’s position or the Agency’s arguments against including or expressly authorizing a broader averaging and trading scheme in the implementing regulations. LPPC recommends that EPA finalize implementing regulations recognizing the broad discretion of states to use emissions trading and other market-based mechanisms for implementing control requirements in the most cost effective way for affected units in their jurisdiction.

There is nothing in section 111(d) that prohibits a state from including averaging (or trading for that matter) in performance standards developed for affected units. Moreover, section 111(d) does not require that state performance standards closely resemble how EPA set the BSER for the source category. EPA even acknowledges that performance standards do not need to be implemented using the same emissions control measures used to develop those standards. This is reflected in EPA’s proposal that affected sources can use both BSER and non-BSER measures to achieve compliance with the state plan obligations.<sup>38</sup> Allowing affected units to comply with a standard through averaging and/or trading is no different from allowing those affected units to comply with the standard by using control measures different from the HRI technologies prescribed in Table 1 for states to use when setting the performance standards.

Section 111(d) also specifies that the Federal-State framework should be closely modeled after the state plan process used for implementing the National Ambient Air Quality Standards (NAAQS) under section 110. As noted earlier, section 111(d) states in relevant part that EPA is to “prescribe regulations which shall establish a procedure similar to that provided by section 110.”<sup>39</sup> Importantly, section 110(a)(2)(A) gives states the authority to use a variety of market-based mechanisms when implementing NAAQS comprising “economic incentives such as fees, marketable permits, and auctions of

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<sup>36</sup> 83 Fed. Reg. at 44,767.

<sup>37</sup> 83 Fed. Reg. at 44,767.

<sup>38</sup> 83 Fed. Reg. at 44,765.

<sup>39</sup> 42 U.S.C. § 7411(d)(1).

emission rights” as implementation measures for attaining air quality standards.<sup>40</sup> Trading and averaging are market-based mechanisms that are in line with the various measures Congress explicitly authorized states to use in state plans implementing the NAAQS. EPA’s restriction of a state’s ability to use these types of market-based approaches in the performance standards disregards Congress’ intent to accord states a similar pathway in section 111(d) as in section 110 when developing state implementation plans. For these reasons, EPA should include in the final implementing regulations express direction that states can consider averaging, trading, and other market-based mechanisms in state plans as a way to facilitate cost-effective compliance by affected units.

### **I. New Revised Implementing Regulations Are More Workable**

EPA is proposing to promulgate new regulations to implement the section 111(d) emission guidelines for affected power plants. As EPA correctly notes, the current implementing regulations were promulgated in 1975 and do not reflect section 111(d) or section 110 as these sections are currently enacted in the Clean Air Act.<sup>41</sup> Specifically, the 1975 regulations do not reflect the amendments made to section 111(d) in 1977 and do not reflect the amendments made to section 110. LPPC agrees with EPA that revised regulations are appropriate because they ensure consistency with the statutory requirements and aim to better align the implementing regulations with the statute.

#### **a. New Extended Time Frames Are Needed to Ensure Effective Implementation of the Program**

The new proposed implementing regulations have revised timelines for the submission of a state plan as well as for EPA’s action on the state plan and potential development and imposition of a federal plan.<sup>42</sup> These new deadlines extend the extremely tight timelines established in the Agency’s original 1975 implementing regulations. For example, EPA allows states to have 3 years from the promulgation of a final emission guideline to submit a plan. EPA gives itself 12 months to review any plan and 2 years to develop a federal plan. These timeframes are closely aligned to those for the state plan process under section 110 for implementing the NAAQS.

For NAAQS, states are required to submit SIPs 3 years after the promulgation of a NAAQS.<sup>43</sup> EPA is required to take final action on a SIP within 1 year after the submission.<sup>44</sup> FIPs are required to be promulgated any time within 2 years after EPA finds that a state has failed to submit a required SIP, or disapproves of a SIP in whole or

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<sup>40</sup> 42 U.S.C. § 7410(a)(2)(A).

<sup>41</sup> 83 Fed. Reg. at 44,769.

<sup>42</sup> 83 Fed. Reg. at 44,770.

<sup>43</sup> 42 U.S.C. § 7410(a)(1).

<sup>44</sup> 42 U.S.C. § 7410(k)(2).

in part.<sup>45</sup> These time frames are all identical to the new proposed revised implementing regulations in the ACE Rule.

Given the delays encountered by states either developing or having SIPs approved under the NAAQS program, LPPC agrees that revised timelines are likely necessary, especially when states have a number of sources for which to set performance standards. That said, LPPC recommends that EPA finalize the timelines with an extension to the time allotted for compliance by affected units. 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. LPPC recommends that the initial compliance period for affected units be required to 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 an affected unit does not undertake HRI projects at the facility to comply with a state-developed performance standard that EPA could ultimately disapprove.

#### **b. Variance Provision Enables the Tailoring of the Performance Standards to the Circumstances of Each Affected EGU**

EPA retains the variance provision in the proposed revised implementing regulations, which allows the state to establish a standard of performance that is different from the EPA-recommended guidelines so long as certain criteria are met.<sup>46</sup> EPA points out that this provision could be used in a situation where a unit has a short remaining useful life, and the performance standard would only be applicable if the source did not shut down by the compliance deadline.<sup>47</sup>

LPPC supports the retention of the variance provision in the revised implementation regulations so that states have the flexibility to develop case-by-case performance standards that are uniquely tailored to the specific circumstances of a particular unit. Section 111(d)(1) requires EPA to establish regulations allowing the state to take into consideration the “remaining useful life” when setting performance standards for the affected source.<sup>48</sup> EPA appropriately views the variance provision as allowing a state to set a less stringent standard for a unit that is shutting down in the near term (a very likely scenario) or a “business as usual” standard for a unit that already has implemented all the HRI projects listed as candidate technologies.<sup>49</sup> LPPC agrees that is important for states to have flexibility when accounting for unit-specific circumstances and the variance

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<sup>45</sup> 42 U.S.C. § 7410(c)(1).

<sup>46</sup> 83 Fed. Reg. at 44,766.

<sup>47</sup> 83 Fed. Reg. at 44,766.

<sup>48</sup> 42 U.S.C. § 7411(d)(1).

<sup>49</sup> 83 Fed. Reg. at 44,766.

provision will provide an important tool that states can use to establish the most appropriate standards of performance for affected units.

EPA also proposes to include the consideration of unreasonable cost of control resulting from plant age, location or basic process design, and physical impossibility of installing necessary control equipment, as giving meaning to the “remaining useful life” factor in section 111(d)(1)(B).<sup>50</sup> LPPC agrees that these factors are subsets of the “remaining useful life” factor and should be considered in the development of performance standards and applied in the context of determining whether a variance is appropriate.

Finally, it should be noted that the proposed ACE Rule emissions guidelines only identify candidate HRI technologies that states must consider in setting performance standards for affected EGUs. Those proposed guidelines, however, do not set specific CO<sub>2</sub> emissions rate limits that states must apply to affected units. As a result, the effect of the variance provision is not to provide relief from any regulatory obligation to achieve prescribed emissions rate limitations, but rather to provide relief from the process for setting performance standards. In particular, the variance provision allows states to set performance standards without considering those candidate technologies for which a state has determined a waiver to be appropriate for a particular unit. LPPC strongly supports EPA’s proposed approach for implementing the variance provision in order to account for various site-specific factors, such as a unit’s remaining useful life, cost of compliance, and technical feasibility.

#### **J. EPA Should Provide Protection for Confidential Business Information and Other Sensitive Data**

The proposed requirements in 40 C.F.R. § 60.5740a require states to submit to EPA very specific information regarding affected plants. Some of the information required is information considered to be sensitive confidential business information, competitive electric information, or information that is otherwise sensitive regarding energy security and reliability that is normally not disclosed to the public. Examples could include fuel prices, fixed and variable operations and maintenance costs, and wholesale electricity prices. Given that this information is required by the proposed regulation to be included in state plan submissions, and that the plan must be subject to a public hearing, EPA should make clear that certain data submitted for review by the state agency can be held confidential if it meets the requirements of state or federal public information law.

### **III. COMMENTS ON PROPOSED NSR REFORMS**

#### **A. NSR Reform Is Needed to Remove Current Regulatory Barriers to Implementing HRI Measures at Existing EGUs.**

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<sup>50</sup> 83 Fed. Reg. at 44,766.

EPA is proposing to establish a new step in the process in the NSR modification rules for determining whether power plant projects are “major modifications” that are subject to NSR permitting.<sup>51</sup> Under this new step, power plant projects would not trigger NSR permitting unless they result in a maximum hourly emissions rate increase. EPA is proposing this change in the NSR rules because the Agency is concerned that sources undertaking HRI projects to comply with state performance standards could inadvertently trigger onerous and costly NSR permitting requirements. This could occur, for example, in the event that affected EGUs completing HRI measures receive preference in dispatch due to increased efficiency and lower cost of operation. This, in turn, could lead to increased emissions.<sup>52</sup> Establishing a maximum hourly emissions rate increase test for determining NSR applicability would reduce the potential for affected sources triggering NSR when implementing HRI projects.

LPPC has been a strong supporter of NSR reforms for EGUs. To that end, LPPC supports the inclusion of a new maximum hourly emissions rate test if EPA decides to include revisions to the NSR Program in the ACE Rule. Over the years, NSR has been a major impediment to power plants undertaking positive heat rate improvements that can increase efficiency. As a matter of policy, the structure of the NSR program should encourage efficiency improvements not discourage them. Moreover, for units that are affected by the ACE Rule, this reform is necessary to prevent EGU owners and operators from triggering NSR for necessary HRI projects undertaken to meet the compliance obligations required by a state plan. As EPA notes in the preamble, if compliance with the ACE Rule requires sources to undertake NSR permitting, “[t]his added time and cost to sources and the associated burden on permitting agencies could hinder the effective and prompt implementation of state 111(d) plans.”<sup>53</sup> For these reasons, LPPC agrees that a maximum hourly emissions test would be a useful and important reform to the NSR rules in the event that EPA decides to finalize revisions to the NSR program.

With respect to including the NSR reforms in the current rulemaking package, LPPC agrees that the proposed NSR reforms are completely severable from EPA’s proposed ACE Rule and the revised implementing regulations. EPA clearly states that while the proposed NSR revisions are part of the same regulatory package as the ACE Rule and the implementing regulations, EPA views these three aspects of the proposal package as “appropriate policies in their own right and on their own terms.”<sup>54</sup> And, consequently, it

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<sup>51</sup> 83 Fed. Reg. at 44,780.

<sup>52</sup> 83 Fed. Reg. at 44,775.

<sup>53</sup> 83 Fed. Reg. at 44,777.

<sup>54</sup> 83 Fed. Reg. at 44,783.

is appropriate to treat the NSR reform package as severable for purposes of judicial review.<sup>55</sup>

In the event that EPA does not finalize the proposed reforms for EGUs, the costs associated with the HRI measures will need to be considered by the states when developing performance standards. The revised implementation regulations and the emission guidelines will need to be revised accordingly if that is the case.

**B. A New Maximum Hourly Emissions Rate Test Should Apply to All Changes at All EGUs**

EPA is proposing that the potential new maximum hourly emissions rate test would apply to all physical and operational changes at all EGUs (both affected and unaffected units).<sup>56</sup> LPPC supports EPA's application of the maximum hourly emissions rate test to all physical and operational changes at all EGUs (affected and unaffected units). As a matter of policy, the NSR program should encourage efficiency improvements for all EGUs and not just those potentially affected by the ACE Rule. Improvements in efficiency provide important energy and environmental benefits and these projects should be encouraged across the entire power plant fleet, not just for those units subject to the ACE Rule.

**C. New Maximum Hourly Emissions Rate Test for EGUs Should Apply to All Pollutants**

EPA is proposing that the new maximum hourly emission rate test in the NSR applicability determination process for EGUs would be available for all pollutants and not just for CO<sub>2</sub>.<sup>57</sup> This is based on the assumption by EPA that the candidate technologies being considered by the state would impact annual emissions of all pollutants from EGUs and not just emissions of CO<sub>2</sub>.<sup>58</sup> LPPC supports EPA's proposed approach to apply a new maximum hourly emissions rate test to all pollutants and not just to CO<sub>2</sub>. EPA's rationale that efficiency improvements would lead to reductions in

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<sup>55</sup> Other than EPA's express intent for severability, there are several important indicia of the proposed NSR reforms being separate and apart from the ACE Rule. As discussed in more detail in the comments, the proposed NSR reforms would apply to all EGUs and not just those affected by the ACE Rule. Furthermore, these proposed reforms would address all physical and operational changes undertaken at EGUs and cover all pollutants, not just CO<sub>2</sub> emissions. The breadth of the proposed reforms demonstrate that the proposed NSR program revisions reach well beyond the immediate proposal package and are clearly separate and independent from the ACE Rule and the revised implementing regulations.

<sup>56</sup> 83 Fed. Reg. at 44,781. It is important to clarify that any NSR test would be triggered only in the event that a physical or operational change results in a significant emissions increase of criteria pollutants, *e.g.* NO<sub>x</sub> or SO<sub>2</sub>, given that NSR permits are only required for CO<sub>2</sub> emissions (of over 75,000 tons) in the event that increases in criteria pollutants exceed the significance threshold and NSR permitting is required "anyway."

<sup>57</sup> 83 Fed. Reg. at 44,781.

<sup>58</sup> 83 Fed. Reg. at 44,781.

emissions from all pollutants from EGUs makes sense. In addition, as a matter of policy, EPA should institute NSR reforms that reduce the permitting burdens associated with projects that reduce emissions from all pollutants so that all EGUs are encouraged to undertake beneficial efficiency improvement projects.

**D. Form of New Maximum Hourly Emissions Rate Test Should Be Based on Achieved Hourly Emissions Using 1-in-5-Year Baseline**

EPA is proposing three different forms for a new maximum hourly emissions test that would be inserted as a new “Step 2” in the NSR applicability analysis.<sup>59</sup> Specifically, EPA is seeking comment on the following options for a maximum hourly emissions test:

- maximum achieved hourly emissions calculated from a statistical analysis of hourly heat input and measured emissions rates during a consecutive 365-day period in the preceding 5 years;
- maximum achieved hourly emissions using the highest actual hourly emissions rate (lb/hr) in a 5-year baseline period; and
- maximum achievable (potential) hourly emissions based on heat input.

In the event that EPA moves forward with the NSR reform for EGUs, LPPC agrees that the second alternative – the maximum achieved one-hour emissions rate from a 5-year baseline from heat input – is the best option for a maximum hourly emissions rate test. This approach appears to be the most legally supportable because it is more closely tied to the actual emissions of the unit. Plus, relying on actual emissions as a baseline is consistent with other aspects of the NSR program. Finally, the second option would likely be the easiest to administer because it is closely tied to actual emissions that will be readily available and verifiable through a straightforward determination of unit performance during a specific, discrete period of time.

It should be noted that section 111(a)(4) of the CAA requires that a causal link exist between the power plant project and the resulting emissions increase in order for the project to be a modification that triggers NSR. The proposed maximum achieved hourly rate test fails to account adequately for causation because it assumes any increase in hourly emissions results from the project. However, an hourly emissions increase may result from a variety of unrelated post-project circumstances, such as an increase in the sulfur content of the coal, variability in the operation of the plant or emissions control equipment, changes in ambient conditions, or normal inherent variability in the emissions monitoring equipment. To address this problem, LPPC recommends that EPA adopt procedures to account for this variability. One possible option is to require a comparison of maximum actual hourly emissions prior to and after the project under the same representative operating conditions. The second is to exclude from the post-project

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<sup>59</sup> 83 Fed. Reg. at 44,780.

maximum hourly emissions any increases that result from factors that are independent from or unrelated to the project.

**E. EPA Should Encourage State Adoption of Maximum Hourly Emissions Rate Test NSR Reform**

EPA is proposing to allow states with authorized programs the discretion to incorporate the NSR maximum hourly emissions rate into their rules.<sup>60</sup> Those states with delegated programs would have to follow the federal program, which would include the maximum hourly emissions rate test.

LPPC agrees that states with authorized programs retain the discretion as to whether the proposed NSR reforms are adopted and effective in that state. That said, LPPC recommends that EPA strongly encourage states with authorized programs to include the maximum hourly emission rate test in their NSR programs so as to promote nationwide consistency and encourage power plant efficiency. Given the benefits that can be derived from making efficiency improvements at EGUs, states should put in place regulations that encourage rather than hinder these types of projects.

**IV. CONCLUSION**

LPPC appreciates the opportunity to provide these comments and recommends that EPA incorporate the suggestions included herein into the final emission guidelines, implementing regulations and NSR Program reforms. These suggested revisions will ensure that the ACE Program is more workable for affected EGUs and that the emission guidelines and the implementing regulations better align with the requirements in the statute while ensuring improved efficiency and reduced CO<sub>2</sub> emissions from affected units. If you have questions, please contact me at (202) 298-3723 or [john@lppc.org](mailto:john@lppc.org).

Sincerely



John Di Stasio  
President  
Large Public Council

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<sup>60</sup> 83 Fed. Reg. at 44,782.