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13 March 2019

Andrew Wheeler
Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code 1101A
Washington, DC 20460
Docket ID No. EPA-HQ-OAR-2013-0495

Re: Connecticut Department of Energy & Environmental Protection's Comments on Proposed Review of Standards of Performance for Greenhouse Gas Emissions from New, Modified and Reconstructed Stationary Sources: Electric Utility Generating Units

Dear Administrator Wheeler:

As commissioner of a state agency responsible for maintaining and improving air quality and increasing deployment of clean and reliable energy, I am disappointed by EPA's proposed amendments to the 2015 new source performance standards (NSPS) addressing greenhouse gas (GHG) emissions from new fossil fuel-fired electric generating units (EGUs).

The amendments propose to weaken the level of the emission standards for new and reconstructed steam generating units in conjunction with a revision to the best system of emission reduction (BSER) determination. The Connecticut Department of Energy and Environmental Protection (CTDEEP) supports the revision of the BSER to encourage improvements in energy efficiency. However, the proposal relaxes GHG emission standards for new, reconstructed and modified fossil fuel-fired units to a level consistent with existing, older units, thus forgoing the opportunity of achieving emissions reductions during the design phase of projects, which is the most cost effective approach to reducing emissions.

Weakening of the GHG emission standards is unacceptable to Connecticut, which is highly vulnerable to changes in climate due to a dense population, aging infrastructure and a coastal location. Conservative climate projections for Connecticut indicated that the annual mean temperature will rise by 5-10 degrees Fahrenheit by the end of the 21st century. In an International Panel on Climate Change (IPCC) special report released in early October 2018, it was stated with high confidence that global warming is likely to reach three degrees Fahrenheit between 2030 and 2052, if temperatures continue to increase at the current rate. A three degree change in temperature will have devastating impacts on ecosystems, water supplies, human

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health and socioeconomic sectors. Based on several lines of evidence, the intensity and frequency of some climate and weather extremes are also projected to increase.

Connecticut has already begun to experience the consequences of climate change and flooding from rising sea levels. Our state was ravaged with weeklong power outages from severe storms in 2011 and 2012. A detailed study of sea level rise in Long Island Sound predicts up to 20 inches of sea level rise in the next three decades, turning even routine coastal storms into life threatening events. Connecticut's most vulnerable residents – low and moderate income renters living in our coastal communities – are most at risk of confronting deadly storms and frequently lack the means to escape or recover readily following a storm. For these reasons, mitigating the effects of a changing climate has been among the highest priorities for Connecticut and reducing GHG emissions from the electric sector has been a key strategy.

Given the demonstrated impacts of climate change on the citizens of Connecticut and across the nation, Connecticut has no tolerance for environmental standards, such as those proposed, that provide no protection to the environment or public welfare. The attachment to this letter provides specific comments on the proposed standards as well as other issues raised by the proposal that are relevant to Connecticut's regulation of fossil fuel-fired EGU GHG emissions.

In general, the proposal needs more development, and I encourage EPA to refrain from finalizing the proposed changes to the 2015 NSPS until it has more thoroughly examined the data that underlie the proposal and significantly revised the proposal. EPA could maintain the proposed BSER yet take into account the performance of emission units other than coal-fired units and develop more stringent emission standards specific to fuel type. Please feel free to contact Tracy Babbidge, Chief of the Bureau of Air Management (860-424-3393) if DEEP may be of assistance as you move forward with this effort.

Sincerely,

Katie Dykes Commissioner

SPECIFIC COMMENTS

Level of the Proposed Standards/ Subcategorization by Fuel (Comment C-30)

The 2015 NSPS sets out "one size fits all" standards for steam generating units rather than prescribing different emission standards for EGUs by fuel type. This approach is continued in the current proposal. However, coal, natural gas and oil all play a significant role in the U.S. energy mix but have different emissions profiles. Subcategorization of the standards by fuel would allow EPA to craft standards of performance tailored to the GHG emission characteristics of each fuel type, which would likely result in an increased level of environmental protection. As proposed, the new unit standards of 2000 lb CO₂/MWh (if base load rating < 2.000 MMBtu/h) and 1900 lb CO₂/MWh (if base load rating > 2,000 MMBtu/h) are an increase over the existing standard of 1400 lb CO₂/MWh. These proposed new unit standards roll-back emission standards, even for existing coal units, which, in general, emit higher levels of CO₂ than gas- or oil-fired units. The change in the BSER does not justify the increase in the standards given the performance of existing units. EPA should revisit the data analysis that informed this rulemaking and re-propose the standards with different, and more stringent, standards appropriate to each major fossil fuel type. As EPA also proposes increases in the standards for reconstructed and modified units, EPA should go through the same exercise and propose appropriately low levels of emissions standards per fuel type.

The preamble and the memorandum describing the approach to BSER are occupied primarily with the revisions proposed as they impact coal-fired units while ignoring the impact and appropriateness of the standards proposed for steam generating units fired by gas and oil. Given that very few new coal units are likely to be built in the United States in the next three decades,¹ the preoccupation with coal units seems inappropriate. Rather, in moving forward with this proposal, EPA should gather information, which is available through EPA's Air Markets Program Data (AMPD) or through CAA Section 114(a) requests, to develop fuel-specific standards that will likely be more stringent, particularly for gas-fired steam generating units, than the proposed fuel-neutral standards. For example, a quick review of the information in AMPD shows that many of Connecticut's current fleet of gas-fired combined cycle units readily comply with the proposed standards. EPA's proposal of revised, fuel-specific standards will also have a positive impact on the level of GHG emissions since many more combined cycle gas-fired units will likely be built in the future than coal units. Furthermore, fuel-specific standards will also likely result in lower levels of the standards even for coal-fired units, as many of the existing coal-fired units, as least in Northeast states, now comply with the proposed standards. Such a change in approach will assist states in meeting GHG emission reduction goals.

Small Modifications (Comments C-1, C-2, C-4, C-23 through C-27)

The 2015 Rule did not include standards for small modifications, meaning modifications that result in an increase in hourly emissions of 10 percent or less, and the proposal invites comment on this topic. An increase in emissions of ten percent could amount to a substantial mass of CO₂ emissions on an annual basis, depending on the size of the unit. Thus, a small modification standard may be appropriate, but it will need to be informed by source data, such as that submitted by modifying Acid Rain units submitting notifications under other NSPSs.

¹ U.S. Energy Information Administration, Table 9 "Electric Capacity: Electric Power Sector: Power Only: Coal" of <u>Annual Energy Outlook 2019 with Projections to 2050</u>, January 2019. https://www.eia.gov/outlooks/aeo/pdf/aeo2019.pdf

Options for Providing Fuel Diversity (Comments C-6, C-7)

In developing he levelized cost of electricity across generation types, EPA assumed nuclear generation and coal-fired generation were similarly attractive for purposes of fuel diversity. Connecticut favors an approach that recognizes a diversified generation fleet, particularly given the dramatic increase in non-emitting sources such as wind, large-scale solar installations, hydropower, nuclear and energy efficiency. Connecticut has been able to procure over 300 megawatts of off-shore wind supplying close to 5% of the state's electric load from zero-carbon resources cost-effectively. This is also the trend nationally, as more than one-third of the U.S. energy mix is now carbon-free, it is clear that such generating resources are economic.² Advances in energy storage will further increase the use of such non-emitting resources. A diversified portfolio of non-emitting resources is more attractive, and more representative of future emissions, and a better value for consumers than new coal units for fuel diversity purposes.

Edison Electric Institute, The Electric Power Industry: Decision Making Past, Present and Future. Presentation to the National Association of Clear Air Agencies. (January 16, 2019).