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December 1, 2014

Gina McCarthy, Administrator
EPA Docket Center (EPA/DC),
Environmental Protection Agency
Mail Code 28221T
1200 Pennsylvania Ave. NW
Washington, DC 20460

Attn: Docket ID No. EPA-HQ-OAR-2013-0602

Re: *Delaware Comments on Proposed Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 FR 34830 (June 18, 2014)*

Dear Administrator McCarthy,

On June 18, 2014, EPA released its proposed rule for the regulation of greenhouse gases under Clean Air Act Section 111(d) and is seeking comments from the affected States and stakeholders by December 1, 2014. The Department of Natural Resources and Environmental Control (DNREC) respectfully submits these comments to the EPA.

Delaware is experiencing climate change, which is causing increased temperatures and precipitation.¹ Since 1900 the average annual temperature rose by 2°F, and average temperatures are expected to increase another 2.5 to 4.5 degrees by mid-century (2050) and by as much as 8 degrees by 2100 (late century). By 2100 average precipitation is expected to increase by about 10%. Heavy rainstorms are expected to become more frequent and more intense. Increasing temperatures may increase risk of serious illness, such as heat stroke, especially for our state's vulnerable citizens. Increased temperatures may also increase in the number of days when ground-level ozone concentrations exceed health based standards, which impacts children and the elderly and even healthy individuals. Changes in precipitation and temperature may also impact how disease spreads, including mosquito and tick borne diseases.

¹ <http://www.dnrec.delaware.gov/energy/Pages/The-Delaware-Climate-Impact-Assessment.aspx>

Climate change is also impacting Delaware by causing sea level rise.¹ As a coastal state, Delaware's economy and quality of life have historically been linked to its shores, its vast expanses of protected tidal wetlands, and its fertile farm fields. Inundation from sea level rise will occur in all three of Delaware's counties, affecting a range of resources. Because of its location, low average elevation, and dependence on the coast, Delaware is particularly vulnerable to the effects of rising sea levels including loss of low-lying land and structures, saltwater intrusion into ground and surface waters, and increased coastal flooding from storm events. Statewide, between 8% and 11% of the state's land area could be inundated by sea level rise by the year 2100.² Sea level rise is likely to affect the condition of roads and bridges and other infrastructure throughout the state, including access routes and evacuation routes to many beach communities and other low-lying areas. Although the direct impacts from sea level rise will be felt primarily in areas near tidal waters, every Delawarean is likely to be affected whether through increased costs of maintaining public infrastructure, decreased tax base, loss of recreational opportunities or loss of community character.

Because climate change is impacting Delaware's people, natural resources, infrastructure and industries, Delaware believes that strong actions to mitigate greenhouse gases are necessary to ensure a high quality of life and economic vitality for generations to come. Delaware conducted a "listening session" on November 5, 2014 to gain Delaware stakeholder input on the federal proposal. Over 50 stakeholders participated in the dialogue or submitted comments to us. The majority of responses from our stakeholders are in agreement that climate change is impacting Delaware, and they were in support of the EPA Clean Power Plan proposal.

For the above reasons Delaware supports EPA's Clean Power Plan proposal as a significant step toward reducing carbon emissions, and offers the following specific comments for the EPA to consider in developing a final rule.

- Delaware fully supports EPA's efforts to utilize its authority under section 111(d) of the Clean Air Act to reduce carbon emissions from the power section. By developing the building block framework as described in the Clean Power Plan proposal, EPA provides states with multiple strategies for demonstrating the "best system of emission reduction." Delaware is supportive of the flexibility EPA has provided by the proposal's acceptance of multi-state and mass-based programs as a means of compliance with the emission guidelines. Delaware and the RGGI states have successfully demonstrated the ability to coordinate across state agencies, work with independent system operators/regional transmission organizations as well as solicit input from stakeholders in order to reduce carbon emissions from our power plants cost effectively. We have collectively reduced

² <http://www.dnrec.delaware.gov/coastal/Pages/SLR/DelawareSLRVulnerabilityAssessment.aspx>

our power plant emissions by over 40% since the program began in 2009. Delaware along with the RGGI states' continue to demonstrate that a regional mass-based approach is a cost effective way to achieve substantial CO₂ emission reductions, and it is important for states with established and proven clean energy and efficiency programs to be able to build on those programs for compliance. We encourage EPA to consider which specific elements of state-based allowance systems must be made federally enforceable, and which may remain as state-enforceable infrastructure for these programs. In doing so, EPA should consider whether key program components – such as the total allowances in the system and the requirement that sources hold allowances to cover their emissions should be federally approvable while implementation details remain state law matters. Delaware suggests EPA provide detailed guidance in the final rule to states on the required plan elements.

- Delaware has one coal-fired unit in the state. Nitrogen oxide (NO_x) emissions from this unit are controlled by selective catalytic reduction (SCR) technology, and sulfur dioxide (SO₂) emissions by a scrubber. Units equipped with emission control equipment have higher heat rates than those without, due to the energy needed to operate the control equipment. The NO_x and SO₂ emission controls were installed on Delaware's unit after the 2012 base year, so the station auxiliary loads associated with those controls were not reflected in the net generation of the 2012 base year. Given that EPA 2030 goal calculations are based on net generation States with controlled units appear to be at a disadvantage. Delaware recommends EPA consider calculating heat rates on gross generation, instead of net generation, for units that are equipped with advanced emission controls. This recommendation is only for units that have enforceable requirements to continuously operate such emission controls at all times the associated unit operates.
- EPA utilized the NEEDS v5.13 data base (p. 6 Goal Computation TSD) for units under construction. This data base did not include Calpine's Garrison Energy 300 MW NGCC that is being constructed in Delaware. This unit commenced construction before January 8, 2014 and has an anticipated start-up date in mid-2015.³ Delaware recommends that the EPA add this unit to the Delaware as an existing affected unit.
- Under Building Block 3, we recommend EPA adopt the alternative approach to quantify the renewable energy generation that is technologically and economically feasible as described in the proposal and technical support documents.⁴ As stated in the RGGI

³ <http://delaware.newszap.com/centraldelaware/123537-70/calpine-breaks-ground-eyes-efficient-energy-future>
<http://delaware.newszap.com/centraldelaware/132618-70/calpine-shows-off-garrison-energy-center-progress>

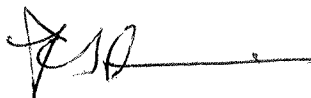
⁴ Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed.

comments dated November 5, 2014 Building Block 3 should focus on establishing in-state renewable generation that is based upon technical and economic potential for the expansion of renewable generation with the boundaries of the individual state and reallocated within the regional nature of the RPS market's alignment with dispatch of electricity by the RTO/ISO.

- We also would like to note a minor error in how Delaware's Renewable Portfolio standard was reflected in Building Block 3 for 2020 – the correct value should be 20% versus the incorrectly stated value of 19% in the EPA proposal.⁵
- Demand response programs can be effective programs that reduce carbon emissions, or they can be programs that appear to reduce carbon emissions but actually increase such emissions. Effective programs are based on a reduction in electric usage due to measures such as load curtailment or employment of energy efficiency measures. The “sham” programs drop load, and replace the load with on-site fossil fuel fired “behind-the-meter” generation. Delaware recommends that the EPA ensure demand response programs are only allowed for credit in goal calculations when such programs do not include any on-site “behind the meter” fossil fuel generation capacity.

Delaware appreciates EPA's unprecedented outreach and engagement with the states and other stakeholders in developing this proposal. We encourage EPA to continue diligent and frequent communication with states as the rule is finalized and we look forward to continuing to work with EPA to reduce carbon emissions throughout our economy.

Sincerely,



fe Ali Mirzakhali, P.E.
Director

Pc: David Small
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