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VIA EMAIL

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EPA Docket Center  
U.S. EPA  
Mail Code 28221T  
1200 Pennsylvania Ave., NW  
Washington, DC 20460

**Re: Docket ID No. EPA-HQ-OAR-2013-0602  
Proposed Carbon Pollution Emission Guidelines for Existing Stationary Sources:  
Electric Utility Generating Units**

Dear EPA:

The New Hampshire Department of Environmental Services (DES) and the New Hampshire Public Utilities Commission (PUC) appreciate the opportunity to provide comments on behalf of the State of New Hampshire in response to the Environmental Protection Agency's (EPA's) proposed *Carbon Pollution Guidelines for Existing Power Plants: Emission Guidelines for Greenhouse Gas Emissions From Existing Stationary Sources: Electric Utility Generating Units*. DES and the PUC also concur with the comments submitted to EPA jointly by the Regional Greenhouse Gas Initiative (RGGI) states<sup>1</sup> and the comments submitted by the Georgetown Climate Center, Northeast States for Coordinated Air Use Management (NESCAUM), and the RGGI EPA Rules Collaborative. DES and the PUC would also like to note that comments from New Hampshire citizens who attended a public hearing (at which a representative from EPA Region 1 presented information on the proposal) on July 28, 2014

<sup>1</sup> Posted at [http://www.rggi.org/docs/RGGI\\_States\\_111d\\_Letter\\_Comments.pdf](http://www.rggi.org/docs/RGGI_States_111d_Letter_Comments.pdf)

jointly organized by several conservation organizations were submitted to EPA directly. In addition, DES held a public forum on September 12, 2014 to solicit input from New Hampshire stakeholders. While DES and the PUC do not specifically endorse these third party comments, it should be noted that they are reflective of the views of many citizens of New Hampshire, and DES and the PUC encourage EPA to carefully consider them as well.

Upon careful review of the proposal, New Hampshire's most likely path to compliance appears to be to continue participating in RGGI, for which a multi-state, mass-based plan may be submitted in accordance with EPA's proposal. Since the inception of RGGI in 2009, regional CO<sub>2</sub> emissions have already been reduced by more than 40% from 2005 levels. New Hampshire CO<sub>2</sub> emissions were also reduced by more than 40% (i.e., from 8,972,027 tons in 2005 to 4,642,898 tons in 2012) as well.

DES and the PUC support the "best system of emission reduction" (BSER) approach, including its foundation consisting of the four Building Blocks, used in developing state goals under this proposal. As noted above, it is our belief that NH's participation in RGGI should fully satisfy NH's compliance obligations based on EPA's current guidance and allowed use of multi-state, mass-based programs. DES and the PUC understand that additional technical support materials will need to be provided to demonstrate equivalency between the programs. However, the atmosphere is impacted by total emissions, and simply reducing the rate of emissions may not achieve the result necessary to prevent the most serious impacts of a changing climate. In its *Climate Action Plan*, New Hampshire has targeted an 80% reduction from 1990 emissions by 2050, because that appears to be the amount of reductions needed to stabilize levels of greenhouse gases in the atmosphere at or below 450 parts per million (ppm). EPA's current proposal means that far greater reductions will have to be achieved post-2030. As noted, the RGGI program actually caps and then further lowers emissions by 2.5% per year from 2015 to 2020, a mechanism that we believe provides a greater level of certainty relative to actual atmospheric CO<sub>2</sub> concentration. Thus, DES and the PUC support utilizing the most cost effective system for achieving reductions: a mass-based, market-based program (i.e., RGGI).

DES and the PUC also encourage EPA to seek regulatory mechanisms that will recognize and credit early actions and ensure regulatory parity among all states. New Hampshire has demonstrated, and will continue to demonstrate, leadership in reducing CO<sub>2</sub> emissions. In 2002, prior to the regional reductions achieved under RGGI noted above, New Hampshire enacted first-in-the-nation legislation that addressed CO<sub>2</sub> emissions from power plants. In response, as outlined further below, several individual New Hampshire facilities made investments that resulted in greater efficiency and lower emissions. States that have not achieved equivalent reductions to date should be required to do more to achieve results comparable to New Hampshire, and New Hampshire should receive credit for acting early.

New Hampshire's 2020 (the last year of the current RGGI program's annual 2.5% cap reduction) base budget (i.e., allowance allocation) under RGGI is 4.08 million tons; a number that DES and the PUC believe may be more appropriately reflective as a goal than EPA's projected New Hampshire 2030 emissions of 3.64 million tons, determined as part of its goal computation. EPA's proposed goal is based on the assumption that all existing fossil fuel-fired generation will be re-dispatched to natural gas combined cycle (NGCC) units with a capacity factor of 63%<sup>2</sup>,

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<sup>2</sup> The nameplate capacity (1,506 MW) used by EPA appears to be an error (ISO-NE's CELT report <http://www.iso-ne.com/trans/celt/report/index.html> lists 1,323 MW winter capacity), but the projected 2030 gas-fired generation (8.3 million MWh) may still be accurate using a lower nameplate capacity and a 70% CF.

projected 2030 gas-fired generation of 8.3 million MWh, and an emission rate of 878 lbs/MWh for those units. Because any potential new sources are covered under the RGGI cap, further reducing the 2020 base budget to EPA's 2030 goal represents significant additional reductions. DES and the PUC recommend using New Hampshire's 2020 RGGI base budget to calculate the RGGI regional total projected 2030 mass-based goal<sup>3</sup>, rather than EPA's presumptive, mass-based goal after rate-to-mass translation.

In response to the release of a Notice of Data Availability (NODA) from EPA on October 28, 2014, DES and the PUC provide further comments, as follows. We recommend that EPA "follow the RGGI example". As described in the "*Summary of RGGI Model Rule Changes: February 2013*"<sup>4</sup>, the RGGI Program was amended by:

1. Lowering the regional 2014 cap to 91 million tons (2012 baseline);
2. Maintaining the original 2.5% per year reduction to the regional RGGI cap for the years 2015 through 2020;
3. Applying budget adjustments to draw down the private bank of allowances that were allowed to be carried forward into the program in 2014 (representing early reductions from the former, higher original baseline); and
4. Retaining a 3-year compliance period, although interim compliance periods were added.

From 2010 to 2011 to 2012, RGGI total emissions declined each year. For the amended 2014 regional cap, RGGI States chose 2012 as a baseline, resulting in the most stringent (lowest) cap level. EPA's NODA provides data for 2010 and 2011. If EPA were to allow states to choose an alternative baseline (either 2010 or 2011 or a 3-year average), then the proposed Clean Power Plan (CPP) would be less stringent than it otherwise would have been using the originally proposed 2012 baseline. Also, an alternative baseline would create an inequity between RGGI States, all of which would continue to implement the RGGI Program based on a 2012 baseline, and non-RGGI States, all of which could choose a less stringent baseline. DES and the PUC recommend that EPA retain the originally proposed 2012 baseline. Some stakeholders have expressed concern that goals based on a single year baseline do not account for year-to-year variability in emissions. The RGGI Program provides compliance flexibility by implementation of a 3-year compliance period, rather than basing the regional cap on a 3-year average. DES and the PUC recommend that EPA also implement a 3-year compliance period in order to address stakeholder concerns.

When the original RGGI Program began in 2009, a limited number of "**Early Reduction Allowances**" were credited into the Program as 2009 allowances. Similarly, when the amended RGGI Program began in 2014, previously "**banked allowances**" were credited. DES and the PUC recommend that EPA implement a similar crediting approach for early reductions under the CPP. Allowing a limited amount of credit for early action would address stakeholder concerns about the potential "cliff" of required reductions beginning in 2020 and would recognize the imperative that BSER properly include early reductions. However, the overall stringency of the CPP in 2030 should

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<sup>3</sup> It may be appropriate for a mass-based system to be composed of only building blocks #1 & #2. Unless demand-side energy efficiency and renewable energy displace fossil generation (including displacing NGCC generation, which is extremely unlikely), adding building blocks #3 & #4 may only offset growth, and reductions in the mass of emissions from fossil generation may primarily be achieved by implementation of building blocks #1 & #2. Mass-based goals composed of only these two building blocks may provide further incentive for states to choose the option to implement multi-state plans. A 4 building block approach is appropriate for a rate-based system.

<sup>4</sup> [http://rggi.org/docs/ProgramReview/FinalProgramReviewMaterials/Model\\_Rule\\_Summary.pdf](http://rggi.org/docs/ProgramReview/FinalProgramReviewMaterials/Model_Rule_Summary.pdf)

not be weakened. Thus, any credit awarded by EPA in 2020 should be phased out by 2030, in a manner similar to application of the budget adjustments under the RGGI Program.

However, DES and the PUC have significant concerns with the individual state rate-based 2030 goal (486 lbs/MWh) proposed by EPA for New Hampshire, the fifth most stringent goal proposed in the entire country. If New Hampshire were required to adopt a single state approach, DES and the PUC do not see individual mechanisms, as outlined in the four Building Blocks, that could reasonably achieve this goal, and would recommend that an alternative goal be established for the reasons outlined below.

First, relative to the potential for additional renewable energy under Building Block #3, while Renewable Portfolio Standards (RPS) in other states may be a mechanism by which to drive investment solely in new renewable energy, New Hampshire's RPS not only established Classes I and II for new renewable energy, but also established Class III Existing Biomass and Class IV Existing Small Hydro because legislators wanted to not only provide an incentive for new renewables, but also to maintain existing renewables that are "at risk" of shutting down. Accordingly, existing small (< 5 MW) hydro generation in New Hampshire should be credited by EPA. Small dams have high ongoing maintenance costs. Without incentives, these dams struggle to remain open and economically viable. Similarly, biomass-fired plants cannot compete with relatively lower-priced natural gas-fired plants without a financial incentive and are at some risk of shutting down. Nearly 85% of (1,172,587 out of 1,381,286 MWh), of New Hampshire's 2012 non-hydro renewable generation was from biomass. In 2006, the Schiller Station coal-fired plant replaced one of its three 50 MW units with a biomass-fired unit. Thus, EPA's projected growth of renewable generation in New Hampshire is likely over-estimated. While New Hampshire does have an RPS, compliance in 2013 was met mostly by Alternative Compliance Payments rather than increases in in-state renewable generation<sup>5</sup>. In addition, out-of-state sources have recently applied for and received eligibility to create New Hampshire Renewable Energy Certificates (RECs). The "Alternative Renewable Energy Approach", as outlined in EPA Technical Support Document, based on technical and economic potential as proposed by EPA could and should be used for New Hampshire.

Furthermore, because trees can remove carbon from the atmosphere as they grow, they are part of an ongoing natural process that recycles atmospheric carbon. The use of trees for energy operates within this carbon cycle in a way that, unlike fossil fuels, does not add new sources of carbon to the atmosphere. Biomass is an essential part of New Hampshire's energy strategy. In a memo dated November 19, 2014, Janet G. McCabe, Acting Assistant Administrator, Office of Air and Radiation, affirmed the carbon benefits of biomass energy, and EPA released a revised carbon accounting framework for biomass energy. DES intends to include the use of biogenic feedstocks in New Hampshire's compliance plan and look forward to working with EPA toward successful implementation of this aspect of the CPP.

Second, the Seabrook Station nuclear plant completed an early 100 MW uprate in 2005 and 2006. This uprate has helped to avoid future fossil fired generation and should be credited. The proposed rule fails to properly promote or recognize the importance of base-load nuclear generation for large-scale reductions in CO<sub>2</sub> emissions. Nuclear energy is the largest existing source of carbon

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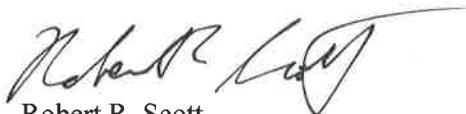
<sup>5</sup> See 2011 RPS Program Review Report and RPS annual reports at [http://puc.nh.gov/Sustainable%20Energy/Renewable\\_Portfolio\\_Standard\\_Program.htm](http://puc.nh.gov/Sustainable%20Energy/Renewable_Portfolio_Standard_Program.htm); also Note that with Order No. 25,674 dated June 3, 2014 under Docket No. DE 14-104, the Commission changed the Class III obligations in 2013.

free electricity generation in the United States, accounting for 19% of all electricity generation in 2012 and 63% of our nation's carbon free power, greater than all renewables combined. Some nuclear power plants are at economic risk of shut-down, given the low cost of natural gas and the increase in construction and operation of natural gas-fueled generation. While Building Block #3 is intended to encourage the continued operation of nuclear units, instead states with existing nuclear capacity are penalized in the calculation of emission rate goals. Under EPA's approach, states with nuclear power are left with a lower emission rate goal relative to states that do not employ nuclear power, thereby limiting states' options to demonstrate compliance. EPA should reconsider this 6% "penalty" for "at risk" nuclear generation. Existing or new nuclear generation should not affect a State's emission rate goal, but rather some portion should be acceptable as an eligible action toward meeting that goal. DES and the PUC stress the importance of setting standards that preserve options (e.g., nuclear) for fuel diversity and maintain grid reliability.

Third, with respect to Building Block # 1, significant heat rate improvements at the coal-fired Merrimack Station (New Hampshire's largest coal-fired plant) were accomplished prior to 2012. Hence New Hampshire would receive no credit for such improvements under the current proposal. At this time, DES and the PUC believe that additional significant upgrades to this and other coal-fired plants in New Hampshire may be difficult to accomplish. In addition, the current operating scenario of New Hampshire's coal-fired power plants (operating more like peaking units as opposed to base-loaded units under the current electricity markets in the Northeast) would likely diminish any potential efficiency gains.

EPA's engagement with the states, the regulated community, and other interested parties throughout this rule development process to date has been exemplary and unprecedented. We urge EPA to follow a similarly robust engagement process as this process progresses through the remainder of the rulemaking process and development of implementation guidance. Experience has taught that rules are most effective if the parties who will be responsible for their implementation and enforcement are able to participate fully and meaningfully in the development of those rules or approaches. Moreover, such an effort and rule are likely to enjoy higher levels of efficiency and effectiveness if they include consideration of continuous process improvement as a management tool, as well as the appropriate use of information technology, as applicable and cost-effective. Given the expected complexities that will be entailed in the further development of this rule, it is likely that electronic recordkeeping, tracking, submittal and approval functions, among others, could ultimately be beneficial to all interested and affected parties.

If you have questions regarding these comments, please contact either of us at: [Thomas.Burack@des.nh.gov](mailto:Thomas.Burack@des.nh.gov) or (603) 271-2958 or [Robert.Scott@puc.nh.gov](mailto:Robert.Scott@puc.nh.gov) or (603) 271-2290, or DES RGGI Program Manager Joe Fontaine at [joseph.fontaine@des.nh.gov](mailto:joseph.fontaine@des.nh.gov) or (603) 271-6794.



Robert R. Scott  
Commissioner, PUC

Sincerely,



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cc: EPA New England Attn: Cynthia Greene  
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