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December 1, 2014

VIA ELECTRONIC FILING

United States Environmental Protection Agency
EPA Docket Center
Mail Code 28221T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

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

Re: Federal Register/Vol. 79, No. 117/ Wednesday, June 18, 2014/ Carbon Pollution
Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units;
Proposed Rule

To Whom It May Concern:

Thank you for the opportunity to provide comments on the notice entitled *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Proposed Rule*. Please find enclosed comments from the South Carolina Office of Regulatory Staff ("ORS") regarding the referenced matter above. Should you have questions or need additional information, please do not hesitate to contact me by telephone at (803)737-0853 or e-mail at fbelser@regstaff.sc.gov

Sincerely,



Florence P. Belser

FPB/fes

Enclosure

**UNITED STATES OF AMERICA
BEFORE THE
ENVIRONMENTAL PROTECTION AGENCY**

Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units Proposed Rule 40 CFR Part 60)))))	Docket ID No. EPA-HQ-OAR-2013-0602
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**COMMENTS OF
THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF**

The South Carolina Office of Regulatory Staff (“ORS”) hereby submits these comments on the proposed Clean Power Plan¹ (“Proposed Rule”) issued by the United States Environmental Protection Agency (“EPA”). The Proposed Rule addresses greenhouse gas (“GHG”) emissions from existing fossil fuel-fired generating units (“EGU’s”) by establishing carbon emission requirements for each state with the ultimate goal of 30 percent nationwide reduction in GHG emissions by the year 2030. However, the Proposed Rule presents significant concerns about the impact of the Proposed Rule on costs and reliability. Our review thus far indicates that the Proposed Rule as drafted will likely cause substantial increases in the rates and bills for electricity within South Carolina significantly impacting our state’s consumers and economy. Additionally, the Proposed Rule could adversely impact the reliability of electric service. Due to these concerns, ORS respectfully submits these comments and recommended changes to the Proposed Rule.

¹ Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (Proposed Rule), 79 Fed Reg. 34830 (proposed June 18, 2014) (to be codified at 40 C.F.R. Part 60).

ORS is the South Carolina state agency charged with the statutory duty of representing the public interest of South Carolina in utility regulation. Pursuant to S.C. Code Ann. § 58-4-10 (Supp. 2013), ORS must be considered a party of record in all filings, applications, or proceedings before the Public Service Commission of South Carolina (“PSC”) and must represent the public interest of South Carolina in utility regulation. Furthermore, it is the duty and responsibility of the ORS, when considered necessary by the Executive Director and in the public interest, to provide legal representation of the public interest before federal regulatory agencies and federal courts in proceedings that could affect the rates or service of any public utility within our state. *See* S.C. Code Ann. § 58-4-50 (A)(8) (Supp. 2013). The public interest is clearly defined by statute as a balancing of the (1) concerns of the using and consuming public with respect to public utility services, regardless of the class of customer; (2) economic development of job attraction and retention in South Carolina; and (3) preservation of the financial integrity of the state’s public utilities and continued investment in and maintenance of utility facilities so as to provide reliable and high quality utility services. S.C. Code Ann. § 58-4-10 (Supp. 2013).

Following publication of the Proposed Rule on June 18, 2014, ORS has participated in multiple stakeholder meetings in South Carolina analyzing the requirements of the Proposed Rule. These meetings have been coordinated by the South Carolina Department of Health and Environmental Control (“SC DHEC”). The participants in these meetings have included South Carolina’s investor owned, state owned and cooperative electric providers, natural gas utilities, conservation groups, advocates of environmental justice, the South Carolina State Energy Office, ORS, SC DHEC, the South Carolina Attorney General’s Office, and representatives from various other stakeholders including industrial groups and business organizations. The SC DHEC has

indicated that the stakeholder participation process will continue after comments have been filed with the EPA, and ORS will continue to participate in that process.

ORS expects many stakeholders in South Carolina to submit comments on the Proposed Rule. ORS will likely concur with many of the comments submitted. However, ORS is compelled to address a few overarching issues.

ORS recommends that the EPA remove under-construction nuclear generation from the calculation of a state's emissions rate goal but provide emissions credit of all nuclear capacity that becomes operational after the issuance of the Proposed Rule.

The EPA's methodology set forth in the Proposed Rule requires South Carolina to reduce its emission rate from the EPA's 2012 estimated rate of 1,587 pounds ("lbs") of carbon dioxide ("CO₂") per megawatt-hour ("MWh") ("lbs CO₂/MWh") to an interim goal of 840 lbs CO₂/MWh and then to a final goal of 772 lbs CO₂/MWh by 2030. This methodology equates to a 51% reduction, which is the third largest percentage reduction from 2012 among all states. Yet, the methodology embedded in the Proposed Rule fails to credit South Carolina for the under-construction zero-carbon emitting nuclear generation being made in this state.

South Carolina is one of only three states where new nuclear power is presently being constructed. Two new nuclear energy generating units² totaling approximately 2,200 megawatts ("MW")³ are under construction in this state, and South Carolina power producers and their consumers are investing billions of dollars in these carbon-free electric generating units. The Units are among the first new nuclear generating units to be built in the United States in more than thirty years. Construction is moving forward, but the Units are not complete and certainly

² V.C. Summer Unit No. 2 and Unit No. 3 (collectively "Units") are under construction in Jenkinsville, South Carolina.

³ Each of the Units is rated at 1,117 MW.

are not yet operational. Current information projects substantial completion of the first unit in late 2018 or the first half of 2019 followed by the projected substantial completion of the second unit approximately twelve months after the first unit.

The EPA invited comment on whether under-construction nuclear capacity should be reflected in the state goals.⁴ The EPA noted that reflecting the completion of the new nuclear units under construction in the goals has a significant impact on the calculated goals for the states in which these units are located. Clearly, this is true for South Carolina. Including approximately 2,200 MW of generation from under-construction nuclear units as though operational results in a much lower mandatory goal for South Carolina. The two Units will not begin operation⁵ until long after the EPA is scheduled to issue its Final Rule, yet including this carbon-free generation in Building Block 3 lowers South Carolina's goal to 772 lbs CO₂/MWh.

The PSC approved the application to build the Units after a full evidentiary hearing that included a review of the costs of alternatives such as natural gas combined cycle units and new coal-fired units with the potential for GHG regulations affecting their economic viability. In part, the PSC was persuaded that nuclear generation, from an environmental standpoint, was the best alternative for meeting the energy needs of the regulated utility and its customers with the least impacts on the environment when comparing air and particulate emissions with coal or natural gas generation.⁶ While the PSC's decision to authorize the construction of the Units was made prior to the June 18, 2014, release date of the Proposed Rule, it is not reasonable to view the

⁴ 79 Fed Reg. 34870-34871.

⁵ South Carolina Electric & Gas Company ("SCE&G") has announced the expected substantial completion of V.C. Summer Unit 2 is now late 2018 or the first half of 2019 and the expected substantial completion of V.C. Summer Unit 3 is now late 2019 or the first half of 2020.

⁶ Order No. 2009-218, pages 11 – 12. <http://dms.psc.sc.gov/pdf/orders/CFA29598-FC94-EA72-B327C7A1BAF37D36.pdf>

incremental cost associated with the CO₂ emission reductions available from completion of the Units as zero cost.

In a state of almost four million citizens with a per capita income 15% below the national average,⁷ South Carolinians are and will pay heavily for the Units, and construction has already experienced delays.⁸ The investment of \$10 to \$11 billion in the Units is significant. South Carolina should not be penalized for being pro-active in choosing a form of base load generation that is non-carbon emitting. In approving the Units, the PSC found that “[n]uclear generation also insulates customers from future CO₂ and other environmental compliance costs associated with fossil-fuels, which are likely to be significant.”⁹ Upon the Units being completed and beginning operations, South Carolina should receive credit for the new generation as an eligible action toward meeting the mandatory goal.

Even though the Units are presently being constructed and several years away from completion, the Proposed Rule treats the Units as if they were already built and operating in 2012. South Carolina is allowed no credit for these substantial investments and this state’s pursuit of clean carbon-free energy. Rather than recognizing South Carolina’s commitment to cleaner electric generation, the treatment under the Proposed Rule effectively penalizes South Carolina for its self-imposed clean energy initiatives and discourages future commitments.

The disparity of the Proposed Rule’s treatment of the under-construction nuclear units is readily apparent when compared to treatment provided under-construction solar or under-construction wind projects. Under-construction solar or wind projects are not included in determining the state’s emission goal, yet under-construction nuclear projects are included in the

⁷ Calculated with data from United States Census Bureau, “Quick Facts” at <http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>

⁸ SCE&G has filed and sought approval for revised construction and/or capital cost schedules on three occasions since initial approval and siting of the Units in 2009.

⁹ Order No. 2009-218, page 13. <http://dms.psc.sc.gov/pdf/orders/CFA29598-FC94-EA72-B327C7A1BAF37D36.pdf>

state's goal. The Proposed Rule should treat these carbon-free under-construction generation sources similarly. As it currently stands, the Proposed Rule treats zero-emitting under-construction nuclear generation resources differently than other under-construction zero emitting generating resources thereby favoring one form of non-CO₂ generation over another. Such disparate treatment is discriminatory, is arbitrary and capricious, and should be changed in the Final Rule.

Finally, the current treatment of under-construction nuclear places undue risk on South Carolina and the two other states with current new nuclear construction. If the Units are not completed but abandoned, South Carolina ratepayers face the costs of achieving a lower, more stringent compliance goal in addition to the actual costs of abandonment.

ORS respectfully requests that the EPA reconsider its position on the inclusion of under-construction nuclear generation and exclude such future generation from Building Block 3 when determining state emission rate goals. Under-construction nuclear generation should not adversely affect a state's emission rate goal but rather should be fully credited as an eligible action toward meeting the state's goal once the new nuclear generation becomes operational.

ORS recommends removing the 5.8% “at risk” adjustment in calculating a state’s emissions goal.

Over 6,500 MW of nuclear capacity is presently operational in South Carolina. This capacity is supported by South Carolina ratepayers and represents sizeable investments by South Carolina electric utilities. These electric utilities, with the approval of the state's regulators, made decisions years ago to make significant investments in reliable, non-carbon emitting nuclear generation, and South Carolina should receive the benefit of those decisions.

The Proposed Rule does not recognize South Carolina's commitment to non-carbon emitting generation that has resulted in a lower carbon footprint in South Carolina for over thirty years. Instead, the Proposed Rule includes an adjustment based on 5.8% of a state's existing nuclear capacity. The EPA states that this adjustment represents an amount of nuclear capacity at risk of retirement across the country. The practical effect of this "at risk" factor drives down the emission rate goal of South Carolina and other states with existing nuclear generation thereby making compliance more expensive for consumers.

South Carolina has a proven historical (and future) commitment to non-GHG emitting nuclear generation. None of South Carolina's existing operational nuclear units are scheduled for retirement before 2030. Therefore, the 5.8% "at risk" factor intended to preserve existing nuclear generation clearly does not apply to South Carolina and should be removed from the goal calculation. Rather than penalize South Carolina by including this 5.8% "at risk" factor, South Carolina should be allowed to include 100% of its actual on-line generation toward compliance with the state goal. Therefore, ORS recommends the removal of the 5.8% penalty for "at risk" nuclear generation in determining the state goal.¹⁰

ORS recommends careful evaluation of the Proposed Rule to ensure grid reliability.

The Proposed Rule raises questions and concerns pertaining to the impact on the reliability of the state's and region's power grid. As large coal-fired generation units are retired, utilities must be provided sufficient time to plan, obtain regulatory approvals for, and construct

¹⁰ See "Resolution Recognizing the Importance of Nuclear Power in Meeting Greenhouse Gas Goals" in which the National Association of Regulatory Utility Commissioners ("NARUC") urges the EPA to "remove the generic approximately 6 percent at-risk nuclear ... from the calculation of State-specific emissions targets." *Resolutions Passed by the Committee of the Whole at the 2014 Annual Meeting of the National Association of Regulatory Utility Commissioners*, pp. 2-3, November 19, 2014. <http://www.naruc.org/Resolutions/14%201119%20NARUC%20Board%20Substantive%20Resolutions%20Packet.pdf>

replacement generation. Generation planning and transmission planning must include sufficient lead time to identify issues and develop corrective measures to ensure reliability in the system. The EPA should allow utilities and other organizations with the expertise in generation planning and transmission planning to determine how the Proposed Rule impacts South Carolina's generation mix and the state's transmission system to ensure a reliable and cost effective solution is obtained.

Areas of concern where the Proposed Rule could impact reliability of the electric system include:

- The substantial amount of fossil fuel generation retirement, which will likely result in stranded assets that increase consumer costs,
- Insufficient time to address transmission constraints and resource reliability,
- Significant reliance on energy efficiency ("EE") to displace demand growth,
- Considerable reliance on variable energy resources and natural gas-fired generation,
- Impact of resource mix change, and
- Fast track of the Proposed Rule scheduled to begin in 2020.

With the Proposed Rule in effect requiring substantial capacity reduction or retirement of coal-fired generation, constraints related to other forms of generation present significant issues. With an increase in natural gas generation, coordination and planning between the electric and gas sectors is imperative. South Carolina has limited capacity to bring additional natural gas volumes to our state, and expansion of interstate and intrastate pipelines to meet the increased demand of natural gas would be required. Additionally, the intermittent nature of solar and other types of renewable generation create challenges in the need for new backup capacity. Modeling potential compliance costs will be necessary to determine which existing fossil-fired generation

units will be needed as backup and to assess which grid infrastructure upgrades will be needed to tolerate fluctuations in power supplies and increased bi-directional line activity associated with renewable generation.

ORS supports emissions credit for initiatives reducing CO₂ emissions that were started before the Proposed Rule was issued.

ORS recognizes that the Proposed Rule is the culmination of an enormous review and analysis to address GHG emissions from EGUs. Even before the Proposed Rule was issued, many states, including South Carolina, have undertaken steps to address carbon emissions. Since 2005, electric utilities in South Carolina have retired, or converted to burn natural gas, over 1100 MW of older, less efficient coal-fired generation and plan to convert or retire over 600 additional MW of coal-fired generation before 2030.

Most recently, the South Carolina General Assembly passed 2014 S.C. Acts No. 236, the “Distributed Energy Resources Program Act” (“S.C. Act 236”). This legislation encourages third party solar leasing, promotes renewable generation facilities (including biomass), and encompasses energy storage and ancillary services. S.C. Act 236 is tailored to attract utility scale investment or purchase of new renewable generation facilities as well as to attract residential and commercial customer participation. S.C. Act 236 will enhance the deployment of renewable energy in South Carolina and further reduce GHG emissions.

The retirements of older coal-fired units, the construction of cleaner electric generation units, and the passage of legislation to encourage investment in renewable generation by utilities and consumers demonstrate the commitment of power producers, policy makers, and the citizens of South Carolina to reduce carbon emissions and provide cleaner energy. These initiatives and opportunities to reduce CO₂ emissions have resulted in a reduction of 31% in CO₂ emissions

since 2005.¹¹ The Proposed Rule establishes goals for South Carolina that do not recognize the significant and recent investments which have reduced carbon emissions in South Carolina, and the costs of these investments will continue to be financed by South Carolina consumers. ORS requests that South Carolina receive credit for these initiatives. To deny credit for South Carolina voluntarily moving ahead before a Final Rule is implemented discourages states from being proactive.

The revisions to the Proposed Rule recommended by ORS promote a balanced approach to meeting the emissions goal.

Through participation in the stakeholder process spearheaded by the SC DHEC, ORS has discussed the Proposed Rule and possible outcomes for South Carolina. ORS understands the concern of the electricity providers that the goal of 772 lbs CO₂/MWh cannot be achieved solely through renewable generation and EE. If under-construction nuclear does not count toward compliance, ORS predicts that despite the costs of overcoming current capacity constraints, electricity providers will turn to natural gas-fired generation as the means of satisfying their obligation to serve and to meet the emission goal. Practically, natural gas will be the most analogous and cost-effective replacement for the state's loss of opportunity to utilize the two nuclear Units under construction to achieve partial, yet substantial, compliance with the Proposed Rule. The capital investments required to plan, site, permit, and build new interstate natural gas pipeline infrastructure will likely displace capital available for renewables and EE. In effect, utilities would pursue the economies of scale of natural gas to the detriment of the other Building Blocks. To achieve a mix of options within the four Building Blocks in this state, the

¹¹ "South Carolina Carbon Dioxide Emissions from Electricity Generation, 1995-2013," page 56. Southern States Regional Energy Profiles 2014 by Southern States Energy Board. <http://energy.ky.gov/Programs/Data%20Analysis%20%20Electricity%20Model/SSEBRegionalEnergyProfiles2014.pdf>

Proposed Rule must be modified to allow under-construction nuclear generation to count towards compliance. South Carolina is best served by a portfolio that utilizes a balanced approach, supported by all forms of zero-emission generation resources. ORS respectfully urges the EPA to modify the Proposed Rule to remove under-construction nuclear from its state emission rate goal, to allow credit toward meeting compliance goals of all new nuclear generation that becomes operational after the issuance date of the Proposed Rule, and to remove the 5.89% at-risk factor from the calculation of the emission rate goal.¹² Should the EPA modify the Proposed Rule as recommended, South Carolina will still need to reduce its CO₂ emissions and will therefore need to utilize options from additional Building Blocks to meet the state's revised goal.

ORS supports comments submitted by other stakeholders in South Carolina.

ORS is aware that several stakeholders in South Carolina are filing comments on the Proposed Rule. ORS supports the comments submitted by SC DHEC, Duke Energy, Santee Cooper, SCANA Corporation, and the Owners/Operators of the five nuclear units currently under construction in the United States. Additionally, ORS recommends the NARUC Resolution to the EPA for consideration.¹³ ORS respectfully urges the EPA to adjust the Proposed Rule considering these comments.

¹² See "Resolution Recognizing the Importance of Nuclear Power in Meeting Greenhouse Gas Goals" in which NARUC urges the EPA to "remove the generic approximately 6 percent at-risk nuclear and nuclear under construction from the calculation of State-specific emissions targets" and to provide "that States may include in compliance plans and thus receive emissions credit related to all output of new nuclear capacity (including uprates of existing plants) that begins operating after the issuance date of the [P]roposed [R]ule." *Resolutions Passed by the Committee of the Whole at the 2014 Annual Meeting of the National Association of Regulatory Utility Commissioners*, pp. 2-3, November 19, 2014. <http://www.naruc.org/Resolutions/14%201119%20NARUC%20Board%20Substantive%20Resolutions%20Packet.pdf>

¹³ See "Resolution Recognizing the Importance of Nuclear Power in Meeting Greenhouse Gas Goals" adopted by NARUC. *Resolutions Passed by the Committee of the Whole at the 2014 Annual Meeting of the National Association of Regulatory Utility Commissioners*, pp. 2-3, November 19, 2014.

CONCLUSION

ORS is grateful for the opportunity to comment on this Proposed Rule and appreciates the EPA's careful consideration of this matter. ORS respectfully requests the following modifications to the Proposed Rule:

1. Exclude under-construction nuclear generation from Building Block 3 when determining state emission goal rates.
2. Allow full credit of new nuclear generation, including under-construction nuclear generation, toward meeting compliance plan goals when the generation becomes operational.
3. Eliminate the 5.8% adjustment for nuclear capacity that is "at risk" for retirement from the calculation of the state goal. None of South Carolina's existing operational nuclear units are scheduled for retirement before 2030. Therefore, the 5.8% "at risk" factor does not apply to South Carolina and should be removed from the state goal calculation.
4. Give credit to South Carolina for the 31% reduction in CO₂ emissions since 2005. South Carolina voluntarily undertook initiatives, such as retiring older coal fired units, constructing cleaner electric generating units, and passing legislation that encourages renewable generation.

Without any modifications, the Proposed Rule will cause substantial increases in the rates and bills for electricity in South Carolina and ultimately have an adverse impact on our state's consumers. Should the EPA revise its Proposed Rule as recommended in these comments,

<http://www.naruc.org/Resolutions/14%201119%20NARUC%20Board%20Substantive%20Resolutions%20Packet.pdf>

renewables and EE will have a role in meeting the state's goal. ORS respectfully requests that the EPA modify the Proposed Rule in accordance with these comments.

Respectfully submitted,



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