Nov 14, 2022

Via Electronic Filing
Ms. Shonta Dunston, Chief Clerk
North Carolina Utilities Commission
430 North Salisbury Street, Dobbs Building
Raleigh, NC 27603-5918

RE: DUKE ENERGY PROGRESS, LLC AND DUKE ENERGY CAROLINAS, LLC CARBON PLAN; DOCKET NO. E-100, SUB 179

CRS appreciates this opportunity to submit comments in response to the Verified Petition for Approval of Carbon Plan filed in docket NO. E-100, SUB 179 on behalf of Duke Energy Progress, LLC ("DEP") and Duke Energy Carolinas, LLC ("DEC", and collectively with DEP, "Duke"). Our comments pertain to the effects of the implementation of HB 951 on voluntary renewable energy (VRE) generation in North Carolina, considerations for electricity imports, reporting requirements, offset requirements, and the economic, environmental, and equity benefits of VRE markets.

Background on CRS and Green-e®

CRS is a 501(c)(3) nonprofit organization that creates policy and market solutions to advance sustainable energy. CRS provides technical guidance to policymakers and regulators at different levels on renewable energy policy design, accounting, tracking and verification, market interactions, and consumer protection. CRS also administers the Green-e® programs. For over 20 years, Green-e® has been the leading independent certification for voluntary renewable electricity products in North America. In 2021, Green-e® certified retail sales of over 110 million megawatt-hours (MWh), serving over 1.3 million retail purchasers of Green-e® certified renewable energy, including over 309,000 businesses.[1]

General Comment

CRS commends the State of North Carolina's establishment of a framework to achieve carbon neutrality in the State by 2050, with a 70% reduction in emissions of carbon dioxide (CO_2) by 2030 as mandated via House Bill 951 ("HB 951") However, Duke's proposed carbon plan threatens to diminish the impact of corporate and other voluntary green power procurement strategies that can offer additional greenhouse gas (GHG) benefits on top of regulations if the right policy and accounting mechanisms are

[1] See the 2022 (2021 Data) Green-e® Verification Report here for more information: https://resource-solutions.org/g2022/.

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in place. CRS provides the following information and recommendations to support GHG regulations in the power sector that protect voluntary demand and private investment in renewable energy.

VRE and GHG Regulation[2]

By requiring a 70% reduction in emissions of CO_2 emitted in the State from electric generating facilities owned or operated by electric public utilities from 2005 levels by the year 2030, the State is setting a generation-based regulation in which reductions from renewable energy generation (and all other activities that reduce emissions at regulated units) will get counted toward compliance (the reduction target).

This represents an important change to the value and regulatory status of the benefits of renewable generation that has important implications for voluntary demand for renewable energy—those benefits are not "surplus to regulation." VRE can have no GHG impact at regulated units beyond what is required, and it subsidizes compliance for regulated entities. As VRE generation reduces emissions that can be counted toward reduction requirements, voluntary purchases help reduce the cost of GHG compliance.

Both demand-side impact on emissions and impact beyond what is required drive voluntary demand, so voluntary demand for renewable energy may suffer under GHG regulations in the power sector.

Solution: Back Out Emissions Avoided by VRE Generation from Duke's Emissions Calculations

To maintain the impact of voluntary purchasing of RE in North Carolina, Duke should estimate and effectively "back out" emissions avoided by VRE generation from its emissions calculations and reduce that quantity of additional emissions reductions. For example, if the total reductions to achieve the 70% reduction target in 2030 were 100 tons and 10 tons of those were avoided by VRE generation, Duke should reduce an additional 10 tons, i.e. reduce 110 tons.

Adjusting GHG reduction requirements in this way helps maintain the impact of VRE generation beyond what is required and in so doing helps maintain voluntary demand and prevents it from shifting outside of North Carolina. This would allow North Carolina to capture the private investment dollars that may otherwise go elsewhere.

Similar policy mechanisms to protect the voluntary market have been adopted in both California and eight of the nine states participating in the RGGI program.

[2] CRS (2018). Impactful Corporate Renewable Energy Procurement in States With Carbon Policies Available at: https://resource-solutions.org/wp-content/uploads/2018/09/Corporate-Renewable-Energy-Procurement-Corporates.pdf

The Green-e® Energy program currently requires that supply used for Green-e® certified sales be surplus to regulation. According to current Green-e® program rules, renewable energy from North Carolina would not be eligible for Green-e® certified sale in or outside of North Carolina. This means that voluntary buyers in North Carolina must get their certified renewable energy from other states. In 2021, over 1 million MWh of renewable energy from North Carolina supplied Green-e® certified sales and over 3 million MWh of Green-e® certified RE were purchased by North Carolina customers.

Economic, Environmental, and Equity Benefits of VRE Markets

Economic

To avoid loss of regulatory surplus, voluntary buyers in states or regions with GHG Regulation may purchase renewable energy from outside of the state or region. In this case, voluntary purchasers will be supporting economic investments in other states or regions. To the extent that some voluntary purchasers may only be motivated to purchase local or in-state renewable energy, counting the benefits of VRE toward GHG compliance may reduce overall voluntary demand. Either result would have negative impacts on the growth of renewable investments in the regulated region and eliminate any GHG compliance contributions that strong VRE markets offer. In other words, if GHG regulations count the benefits of VRE, the state may lose it, in which case it provides neither emissions reductions beyond nor toward the reduction target.

Environmental

In 2020, voluntary buyers procured about 35% of all non-hydro renewable energy generated in the United States.[3] This voluntary market leverages private investment to reduce the environmental and health impacts of electricity generation. We recommend that states design GHG Regulations to protect the ability of voluntary actions to reduce emissions. This will support and enhance, rather than undercut, VRE markets and motivate more businesses to invest in clean energy with their private funds. Preserving the avoided GHG emission value of VRE produces incremental emissions reductions driven by private sector investment. In other words, it ensures that GHG Regulation does not represent a ceiling for reductions. This may reduce the cost of future GHG regulation or increases to regulatory targets, or reduce the need for regulation altogether, as voluntary emissions reductions fill the gap between regulatory requirements and science-based targets.

Equity

To implement HB 951 equitably, the Carbon Plan should avoid shifting both costs and emissions to other residential customers. If HB 951 is implemented in a way that allows for voluntary purchases to be counted towards compliance, this potentially reduces the benefits of compliance to other residential

[3] NREL. Status and Trends in the Voluntary Market (2020 data) available at: https://www.nrel.gov/docs/fy22osti/81141.pdf

customers by allowing Duke to achieve compliance, at least in part, by delivering renewable energy exclusively to voluntary buyers. On the other hand, not counting the benefits of VRE toward compliance may force additional reductions from activities that benefit non-VRE Duke customers.

Imported Electricity[4]

Regarding the Commission's determination on *whether "it intends to deem CO2 emissions from out-of-state generating resources selected to be part of the Carbon Plan as if such emissions occurred in the State,"* CRS requests clarification/confirmation that Duke is not reporting reductions in emissions associated with imported electricity, or necessarily characterizing imported electricity in terms of resource-specific generation and associated emissions delivered to North Carolina customers, but rather simply considering extending the generation-based emissions reduction target to out-of-state generators that serve Duke load or count reductions from those units toward the reduction target.[5]

Duke should avoid reporting imported specified electricity, which would implicate RECs associated with RE imports[6]. Regulating emissions associated with imported power requires tracking and verifying the delivery of emissions as an attribute of power generation, and it therefore affects RECs, and VRE markets. It could potentially double count another state's RPS or voluntary program. If the power from an out-of-state wind facility is delivered to the state and counted as zero-emissions power and the RECs associated with that power are not also consumed in that state, then there is double counting.

Reporting

Regarding the approval of the methodologies outlined in Carolina's Carbon Plan Appendix A (Carbon Baseline and Accounting). HB 951 specifies that the Companies review and update their Carbon Plan every two years. However, HB 951 does not specify any reporting requirements on the Companies' status with authorized carbon reduction targets. The absence of a reporting requirement raises concerns around how achievement of the carbon reduction goals will be measured and verified. CRS recommends that the Commission require Duke to develop a regular report on their progress as part of the Carbon Plan, including reporting on actual VRE sales and estimated avoided emissions to compare with planned VRE volumes and associated additional reductions in the plan as recommended.

Offset Requirements

Offsets should not come from projects that could reduce emissions at regulated units. That would result in double counting since those reductions would be counted toward the reduction target and

[4] CRS (2017). Corporate and Voluntary Renewable Energy in State Greenhouse Gas Policy: An Air Regulator's Guide. Available at: https://resource-solutions.org/document/101717/
[5]Carolinas Carbon Plan Appendix A: Carbon Baseline and Accounting. Available at: https://desitecore10prod-cd.azureedge.net/-/media/pdfs/our-company/carolinas-carbon-plan/supplemental/appendix-a.pdf?rev=200a622f2b33442d9822ab91733d9510
[6] See CRS (2022) Guide to Electricity Sector Greenhouse Gas Emissions Totals. Available at: https://resource-solutions.org/document/110322/

then issued an offset and counted again. To prevent double-counting, offsets should come from outside of the electricity sector and should be verified by a credible offset project verification standard, e.g., Verra, Gold Standard, Climate Action Reserve, American Carbon Registry.

CRS staff would be happy to set up a call to discuss best practices and the appropriate verification measures for maintaining regulatory surplus and achieving the state's GHG emissions reductions goals. CRS has extensive experience developing reporting and verification processes, and has advised state, national, and international agencies on verification approaches and procedures.

We thank you for this opportunity to provide comments on Duke's Carbon Plan. Please feel free to reach out with any questions or comments.

Sincerely,
Lucas Grimes
Manager, Policy