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Oct 22 2021

October 22, 2021

VIA Electronic Filing

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

Re: Docket No. E-100, Sub 167
Sub 158 Additional Issues Status Update

Dear Ms. Dunston:

Enclosed for filing on behalf of Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina ("DENC" or the "Company"), and pursuant to the *Order Granting Continuance and Establishing Reporting Requirements* issued by the North Carolina Utilities Commission ("Commission") in Docket No. E-100, Sub 167 on October 30, 2020 ("Continuance Order"), is DENC's Status Update on the status of its work on the applicable additional issues set forth in the Commission's April 15, 2020 *Order Establishing Standard Rates and Contract Terms for Qualifying Facilities* ("Sub 158 Order") in Docket No. E-100, Sub 158 ("Sub 158 Additional Issues"). The information provided with this status update is consistent with the Company's planned proposals to be submitted with its Initial Statement in Docket No. E-100, Sub 175 on November 1, 2021.

Performance Adjustment Factor Development Metrics

In the Sub 158 Order, the Commission directed that the Utilities, "with input from the Public Staff, shall evaluate appropriateness of using other reliability indices, specifically the EUOR metric, to support development of the PAF prior to the next biennial avoided cost riling."[1] For purposes of the streamlined 2020 Avoided Cost Case, the Company continued to apply the PAF that was approved in the 2018 Avoided Cost Case, which the Commission approved in its final order in the 2020 Avoided Cost Case in this proceeding.[2]

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[1] Sub 158 Order at Ordering Paragraph 13.
[2] Order Establishing Standard Rates and Contract Terms for Qualifying Facilities at 52, Docket No. E-100, Sub 167 Order (Aug. 13, 2021) ("Sub 167 Order").

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As indicated by the Company's 45-day status updates filed in this docket, the Company engaged in multiple discussions with the Public Staff regarding this topic. As reported in DENC's recently filed status updates, the Company and the Public Staff reached consensus that the Company will use the Weighted Equivalent Unforced Outage Factor ("WEUOF") to determine the PAF. The WEUOF accounts for unit unavailability caused by maintenance and forced outages. The Company has also agreed with the Public Staff to use a 5-year average, instead of the previously used 3-year average, to calculate the WEUOF. The Company and the Public Staff also agreed that DENC will have the flexibility to determine the months to be used in the overall PAF calculation, and would provide support for use of those months in this Initial Statement. For the Company's initial filing to be submitted November 1, 2021 in Docket No. E-100, Sub 175 ("Sub 175 Initial Filing"), the Company will use 5 years of history for the months January, February, June, July, and August. These months represent the months of greatest capacity need as indicated by PJM's designation of "Peak Period Months" in PJM Manual 10.

Continued Evaluation of Line Loss Avoidance

In the 2016 biennial avoided cost case, DENC proposed and was granted approval to eliminate the 3% adder to avoided energy rates that had traditionally been included to reflect the assumption that distributed QFs helped the utility avoid line losses from bringing power from elsewhere on its system to that location. DENC showed that with the amount of distributed QF generation connected in its North Carolina service area, there was a significant and growing amount of backflow onto the Company's system, such that QFs were no longer avoiding line losses for the Company. In its final order in the Sub 148 Case, the Commission directed DENC to reevaluate the line loss issue for the 2018 avoided cost proceeding. In the 2018 biennial avoided cost case, the Company proposed to continue not including the line loss adder based on an updated study of backflow at DENC's transformers located in North Carolina. The Sub 158 Order found that power backflow on substations in DENC's North Carolina service territory from solar generation on the distribution grid continues to increase such that avoided line loss benefits associated with distributed generation have been reduced or negated, and that it was appropriate for DENC to continue to not include a line loss adder in its standard offer avoided cost payments to solar QFs on its distribution network.[3] The Commission also found it appropriate to require the Utilities to "continue to study the impact of distributed generation on power flows on their distribution circuits and to provide the results of those studies as a part of their initial filings in the next biennial avoided cost proceeding."[4]

For purposes of the 2020 Avoided Cost Case, the Company considered the line loss adder elimination to constitute a Sub 158 Additional Issue, and therefore continued to reflect the elimination of the line loss adder in its avoided energy rates in that proceeding. In the Sub 167 Order, the Commission concluded it to be appropriate for the Company to continue not to include the line loss adder in standard offer avoided cost payments. The

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[3] Sub 158 Order at 34-36, Ordering Paragraph 14.
[4] *Id.* at 36.

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Commission also accepted the Public Staff's recommendation that the Utilities continue to file information to support removal or inclusion of the line loss adder in proposed avoided cost rates in future avoided cost proceedings.[5]

Consistent with the Commission's directive, the Company has updated its line loss analysis for its Sub 175 Initial Filing. The updated analysis demonstrates that the transformers with Solar DG connected continue to experience backflow (generation exceeds the load requirements of the circuit). Compared to the Company's study referenced in the 2018 Avoided Cost Case, the number of transformers experiencing backflow has increased as more Solar DG has become operational. Specifically, of the 42 transformers with Solar DG connected, the updated study shows 34 transformers realizing consistent backflow, compared to 16 in the 2018 study. Only 3 transformers are shown to have consistent positive flow (capability for additional load reduction), indicating that only 3 of the 42 transformers still have capacity for additional load reduction capability. The updated power flow study supports the continued appropriateness of not including an adder for line losses in the calculation of avoided energy payments to QFs.

CT Costs

In the Sub 158 Order, the Commission directed the Utilities to "evaluate and apply cost increments and decrements to the publicly available CT cost estimates, including the use of brownfield sites, existing infrastructure, decrements for electrical and natural gas connections, and other balance of plant items, to the extent it is likely that this existing infrastructure is used to meet future capacity additions by the utility." The Commission determined this to be appropriate in light of the number of current facilities that have been built on brownfield sites and the number of plant retirements projected in the Utilities' IRPs.[6]

The Company engaged in multiple discussions with the Public Staff on this topic throughout 2021, as reported in DENC's status updates in this docket. DENC also worked with the Duke Utilities to simplify and increase the transparency of the calculation of CT cost estimates. The common goal of the Utilities' work on this matter is to present CT cost estimates based on agreed-upon inputs such that the inputs may be updated more easily in each biennial avoided cost case as needed, but the underlying methodology for calculating the CT cost estimate would not need to be re-litigated from case to case. For purposes of the Company's Sub 175 Initial Filing, the proposed methodology for determining the installed CT cost to be used in calculating the avoided capacity rate will be based on the consensus reached with the Duke Utilities. Specifically, with its Sub 175 Initial Filing the Company plans to utilize the 2021 EIA Annual Energy Outlook costs for an F class turbine. The Company does not plan to make any adjustments to the CT equipment costs,

[5] Sub 167 Order at 50-51.
[6] Sub 158 Order at 33-34, Ordering Paragraph 9.

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but to make adjustments to reflect economies of scale. Because the EIA costs are provided in 2020 dollars, they will be escalated to 2021 dollars for a January 1, 2022 COD.

FERC Order No. 872

On July 16, 2020, FERC issued Order No. 872, in which it approved certain revisions to its PURPA implementing regulations to address the changes in circumstances that have transpired since PURPA was enacted, including the growth and maturation of the renewable energy industry, among other factors.[7] In its *Order Establishing Biennial Proceeding, Requiring Data, and Scheduling Public Hearing* issued in this docket on August 13, 2020, the Commission noted "that the FERC issued Order No. 872 on July 16, 2020, in its Docket Nos. RM19-15-000 and AD16-16-000 potentially driving additional changes to PURPA implementation and the determination of avoided cost rates in North Carolina." In the Sub 167 Order the Commission recognized that it would consider proposals stemming from Order No. 872 and its potential effect on PURPA implementation in North Carolina in this proceeding.

With its Sub 175 Initial Filing, DENC plans to propose modifications to its LEO Forms consistent with Order No. 872.

First, FERC found that revision of its one-mile rule was required due to the development of large numbers of affiliated projects.[8] FERC adopted a new rule governing when affiliated QFs are considered to be located at the same site, and are therefore considered a single facility for purposes of the 80 MW small power producer limitation. The rule provides that (1) there is an irrebuttable presumption that affiliated small power production QFs that use the same energy resource and are located one mile or less from each other are located at the same site, (2) there is also an irrebuttable presumption that affiliated small power production QFs that use the same energy resource and are located 10 miles or more apart are located at separate sites, and (3) there is a rebuttable presumption that affiliated small power production QFs that use the same energy resource and are located more than one mile and less than 10 miles from each other are located at separate sites.[9] FERC also adopted certain factors as relevant indicia of whether affiliated small power production facilities are located at the same site.[10] To implement this rule, the Company plans to propose to revise its LEO Forms to include confirmation that the QF is not less than one mile, or between one and ten miles, of an affiliated facility using the same energy resource.

[7] Order No. 872 at PP 51-55.
[8] *Id*. at P 472.
[9] 18 C.F.R. § 292.204(a)(2)(i). FERC's rule also provides that for purposes of making these determinations, the distance between two facilities shall be measured from the edge of the electrical generating equipment of one facility to the edge of the electric generating equipment of the other facility. 18 C.F.R. § 292.204(a)(2)(ii).
[10] Order No. 872 at PP 508-509.

Second, FERC adopted a new rule, Section 292.304(d)(3), which provides that "[a] [QF] must demonstrate commercial viability and financial commitment to construct its facility pursuant to criteria determined by the state regulatory authority or nonregulated electric utility as a prerequisite to a [QF] obtaining a legally enforceable obligation. Such criteria must be objective and reasonable." FERC affirmed that states have flexibility to decide what constitutes an acceptable showing of commercial viability and financial commitment, subject to the criteria being objective and reasonable. FERC offered examples of factors that a state could reasonably require, including that the QF demonstrate that it is taking meaningful steps to obtain site control adequate to commence construction of the project at the proposed location, that it file an interconnection application with the appropriate entity, and that it has submitted all applications, including filing fees, to obtain all necessary local permitting and zoning approvals.[11]

Consistent with Section 292.304(d)(3), the Company plans to propose in its Sub 175 Initial Filing to modify its LEO Forms to include a statement by the QF that, for purposes of demonstrating commercial viability and financial commitment, it warrants that it has: taken meaningful steps to obtain site control adequate to commence construction of the project at the proposed location; and submitted all required applications including filing fees to obtain all necessary local permitting and zoning approvals. These criteria are the same as those suggested by FERC as factors that a state could reasonably require, and the Company believes that by warranting that they are met, in combination with the existing requirement that the QF have submitted an Interconnection Request and reached certain milestones in the interconnection process, a QF will have sufficiently demonstrated its commercial viability and financial commitment to justify establishing a LEO.

Please do not hesitate to contact me should you have any questions. Thank you for your assistance with this matter.

Very truly yours,

/s/Andrea R. Kells

ARK/kjg

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[11] *Id*. at P 685.

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing *Sub 158 Additional Issues Status Update*, filed in Docket No. E-100, Sub 167, were served electronically or via U.S. mail, first-class postage prepaid, upon all parties of record.

This the 22nd day of October, 2021.

/s/Andrea R. Kells

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