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Apr 27 2021

April 27, 2021

**Via Electronic Filing**

Ms. Kimberley A. Campbell, Chief Clerk  
North Carolina Utilities Commission  
Dobbs Building  
430 North Salisbury Street  
Raleigh, North Carolina 27603

*Re: Docket No. E-100, Sub 101  
Docket No. E-100, Sub 158*

Dear Ms. Campbell:

Enclosed for filing in the above-referenced proceedings on behalf of Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina, is the Reply of Dominion Energy North Carolina.

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:tam

Enclosure

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. E-100, SUB 101  
DOCKET NO. E-100, SUB 158

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

|   |   |                            |
|---|---|----------------------------|
| In the Matter of                          | ) |                            |
| Petition for Approval of Revisions to     | ) |                            |
| Generator Interconnection Standards       | ) | REPLY OF VIRGINIA ELECTRIC |
|   | ) | AND POWER COMPANY D/B/A    |
| In the Matter of                          | ) | DOMINION ENERGY NORTH      |
| Biennial Determination of Avoided Cost    | ) | CAROLINA                   |
| Rates for Electric Utility Purchases from | ) |                            |
| Qualifying Facilities – 2018              | ) |                            |

NOW COMES Virginia Electric and Power Company d/b/a Dominion Energy North Carolina (“DENC” or the “Company”) and, pursuant to the Order Requiring Additional Information issued by the North Carolina Utilities Commission (“Commission”) in the above-captioned proceeding on March 29, 2021 (“Order”), hereby submits this Reply (“Reply”) in response to the Response of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC (“Duke”) filed in this docket on April 13, 2021.

**INTRODUCTION**

In the Order, the Commission summarized previous orders and pleadings issued and filed in these above-captioned dockets relating to the Solar Integration Services Charge (“SISC”) developed by Duke in Docket No. E-100, Sub 158 (“Sub 158 Case”), Duke’s proposed SISC avoidance requirements, and the stakeholder process addressing the addition of energy storage at existing QFs that was held during 2020, in which the Company participated. The Commission directed Duke to respond by April 13, 2021, to questions regarding how it derived the volatility thresholds for SISC reduction, and regarding Duke’s proposal to install a second meter as needed at no expense to QFs and

to study the meter and report the study results to the Commission. The Commission allowed other parties to respond to these questions on or before April 13, 2021, and allowed all parties to reply by April 27, 2021.

On April 13, 2021, Duke filed responses to the Commission's questions, and the Company filed a Letter in Lieu of Initial Response ("Letter"). In its Letter, DENC stated that it had carefully reviewed the pleadings and orders discussed in the Order, but as the questions presented in the Order were focused on the Duke SISC, the Company did not have responses to the Commission's questions to provide at that time. DENC noted that it may, upon review of Duke's and other parties' responses, file a reply as allowed by the Commission by April 27, 2021.

While the Commission's questions in the Order were specific to Duke's SISC, the Company offers this Reply in order to contemporaneously present its unique approach to accounting for the impacts to its system from intermittent, non-dispatchable QFs that incorporate energy storage devices ("ESDs") in their design, and requests that any Commission decisions made with respect to the questions it is considering concerning Duke's SISC avoidance proposal be made specific to the SISC.

## REPLY

**A. DENC's proposed RDC Avoidance Protocol is designed to account for reductions in variability, as compared to a QF-provided generation forecast, that may occur due to incorporation of an ESD in a Controlled Solar Generator design.**

In the Sub 158 Case, DENC proposed to adjust avoided energy cost payments to intermittent non-dispatchable QFs to reflect the increase in system supply costs—specifically, re-dispatch costs—caused by these generators. In the Sub 158 Order, the

Commission approved the proposed re-dispatch charge (“RDC”), modified pursuant to DENC’s agreement with the Public Staff, to be \$0.78/MWh.<sup>1</sup>

The RDC, like Duke’s SISC, is intended to address the general issue of cost impacts to the utility system as a result of the increased net load volatility caused by increased penetration of distributed non-dispatchable QFs. The RDC, however, specifically focuses on the cost to the Company of the hourly variability of an intermittent non-dispatchable QF’s output measured by the cost of re-dispatch caused by the intermittent output.

In the Sub 158 Order, the Commission also directed DENC to file a proposed protocol for avoidance of the RDC.<sup>2</sup> In the Sub 167 Case, the Company has proposed that the RDC can be reduced to the extent the QF reduces the variability of its output through the use of an ESD. DENC defines an ESD as a component of a QF facility that uses energy storage technology, including but not limited to battery storage.<sup>3</sup> The Company’s proposed RDC “Avoidance Protocol” is therefore uniquely structured to account for reductions in variability that may be achieved by the inclusion of an ESD in a QF facility’s design.

Specifically, DENC has proposed to calculate the reduction in variability as the percent reduction in variability from a case without storage to a case with storage. The output for the case without storage would be the actual metered output of the facility

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<sup>1</sup> Order Establishing Standard Rates and Contract Terms for Qualifying Facilities at 112, Docket No. E-100, Sub 158 (Apr. 15, 2020) (“Sub 158 Order”). In the currently pending 2020 biennial avoided cost case (“Sub 167 Case”), DENC has proposed to continue to apply the \$0.78/MWh RDC that was approved in the Sub 158 Order for purposes of its Schedule 19-FP in the Sub 167 Case. No party to the Sub 167 Case objected to DENC’s continued application of the RDC as approved in the Sub 158 Order; this issue is currently pending before the Commission in that docket.

<sup>2</sup> Sub 158 Order at 113.

<sup>3</sup> Initial Statement and Exhibits of Dominion Energy North Carolina at 10-12, Docket No. E-100, Sub 167 (Nov. 2, 2020) (“DENC Sub 167 Initial Statement”).

excluding the impact of storage, and the output for the case with storage would be the actual metered output for the facility including the impact of storage. Determining the impact of storage will require that the storage device is separately metered. For each case, on a calendar year basis, DENC will calculate variability as the sum of the hourly absolute output variance from a QF-provided generation forecast. The percent reduction in variability will be calculated by subtracting the ratio of the variability of the case with storage to the variability of the case without storage from one. DENC will then calculate a credit to the RDC as follows: (1) the percent reduction multiplied by (2) the RDC rate multiplied by (3) the total calendar year output (MWh) of the case with storage.<sup>4</sup>

To be eligible for the re-dispatch cost reduction, a QF must provide DENC with an hourly generation output forecast for every hour of the year. For the first year of the contract, the QF must provide the forecast on or before 90 days prior to the facility's commercial operations date ("COD"). For subsequent contract years, the QF may update the forecast on or before 90 days before the start of every calendar year of the contract; if no updated forecast is provided, DENC will utilize the previously provided forecast to calculate the RDC reduction credit. Every April, DENC will calculate the re-dispatch cost reduction using the prior calendar year forecast and metered data. DENC will provide the RDC reduction as a line item credit with the first payment following the April calculation.<sup>5</sup> DENC's proposed RDC Avoidance Protocol is pending the Commission's final decision in the Sub 167 Case.

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<sup>4</sup> Id. at 10-11.

<sup>5</sup> Id.

**B. Incorporation of an ESD in a QF facility design will necessitate installation of a second meter, which will meter hourly data both for purposes of invoicing the ESD output and applying the proposed RDC Avoidance Protocol.**

As noted in the Utilities' September 16, 2020, Joint Report on Storage Retrofit Stakeholder Meetings filed in Docket No. E-100, Sub 158, whether a DC or AC connection is used for a QF that incorporates an ESD in its design, a separate meter will be needed to separately measure the storage output of the facility.<sup>6</sup> For DENC and as noted above, the separate meter will also be utilized if the QF wants to apply the Company's proposed RDC Avoidance Protocol, if the Protocol is accepted by the Commission in the Sub 167 Case.<sup>7</sup> This is the case for facilities that may be retrofitted to incorporate ESD or for new projects that include ESD in their design from the outset.

The second meter will measure the hourly output of the ESD, which data will be used for invoicing purposes as well as to calculate any reduction in variability in order to apply the proposed RDC Avoidance Protocol. DENC designed the RDC Avoidance Protocol to utilize hourly data as that is consistent with the approach traditionally used in the Day-Ahead and Real-Time PJM markets and is also consistent with the estimation of the RDC charge. As is the case with any additional metering associated with a QF interconnected to the Company's system pursuant to the North Carolina Interconnection Procedures, Forms, and Agreements ("NCIP"), DENC would view a second meter for a QF using an ESD as Interconnection Facilities for which cost recovery is governed by Article 4 to the North Carolina Interconnection Agreement for State-Jurisdictional Generator Interconnections.<sup>8</sup>

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<sup>6</sup> Joint Report by Duke Energy Carolinas, LLC, Duke Energy Progress, LLC, and Dominion Energy North Carolina on Storage Retrofit Stakeholder Meetings at 6-7, Docket No. E-100, Sub 158 (Sept. 16, 2020).

<sup>7</sup> DENC Sub 167 Initial Statement at 10.

<sup>8</sup> See Attachment 9 of the NCIP, Article 4, Docket No. E-100, Sub 101 (effective June 14, 2019).

## CONCLUSION

WHEREFORE, Dominion Energy North Carolina respectfully requests (1) that the Commission accept this Reply, and (2) that any Commission decisions made with respect to the questions it is considering related to Duke's SISC avoidance proposal be made specific to the SISC.

Respectfully submitted,

/s/ Andrea R. Kells

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*Counsel for Virginia Electric and Power  
Company, d/b/a Dominion Energy North  
Carolina*

April 27, 2021

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing Reply of Dominion Energy North Carolina, as filed in Docket No. E-100, Sub 101 and Docket No. E-100, Sub 168, was served via electronic delivery or mailed, first-class, postage prepaid, upon all parties of record.

This, the 27<sup>th</sup> day of April, 2021.

/s/Andrea R. Kells

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