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June 7, 2021

VIA ELECTRONIC FILING

Ms. Kimberley A. Campbell
Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

Re: Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's Fifth Joint 45-Day Progress Report
Docket No. E-100, Sub 167

Dear Ms. Campbell:

Enclosed please find the Fifth Joint 45-Day Progress Report for Duke Energy Carolinas, LLC and Duke Energy Progress, LLC for filing in the above-referenced docket.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Kendrick C. Fentress

Kendrick C. Fentress

Enclosure

cc: Parties of Record

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-100, SUB 167

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of:	)	
	)	**FIFTH JOINT 45-DAY**
Determination of Avoided Cost Rates for	)	**PROGRESS REPORT OF DUKE**
Electric Utility Purchasers from Qualifying	)	**ENERGY CAROLINAS, LLC**
Facilities – 2020	)	**AND DUKE ENERGY**
	)	**PROGRESS, LLC**

NOW COME Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP" and together with DEC, "Duke" or the "Companies") by and through counsel, and pursuant to the *Order Granting Continuance and Establishing Reporting Requirements ("Reporting Order")*, issued by the North Carolina Utilities Commission ("NCUC" or "Commission") on October 30, 2020, in the above-captioned docket and hereby respectfully provide this fifth 45-day report on their progress in addressing certain additional issues for the November 2021 avoided cost proceeding. Specifically, the Reporting Order directed the Companies to file by December 7, 2020, and every 45 days thereafter, a proposal, including a timeline, of how the Companies intend to address each of the "Sub 158 Additional Issues," as discussed in the Reporting Order and further detailed herein. The Companies' progress report to the Commission on the Sub 158 Additional Issues is as follows:

Background

On August 13, 2020, the Commission issued an *Order Establishing Biennial Proceeding, Requiring Data, and Scheduling Public Hearing*, which initiated the 2020 biennial proceeding for determining each utility's avoided costs with respect to rates for purchases from qualifying facilities pursuant to the provisions of Section 210 of the Public Utility Regulatory Policies Act of 1978 ("PURPA") and the Federal Energy Regulatory Commission's ("FERC") regulations implementing those provisions, as well as North Carolina's PURPA implementation statute, N.C. Gen. Stat. § 62-156 ("Scheduling Order").

The Scheduling Order noted that the Commission's April 15, 2020 *Order Establishing Standard Rates and Contract Terms for Qualifying Facilities* issued in Docket No. E-100, Sub 158 ("Sub 158 Order") set forth a number of additional issues to be addressed by the utilities in their initial November 1, 2020 filings in Docket No. E-100, Sub 167. These issues include:

- Real-time pricing tariffs;
- Cost increments and decrements to the publicly available combustion turbine cost estimates;
- The use of other reliability indices, specifically the Equivalent Unplanned Outage Rate ("EUOR") metric, to support development of the performance adjustment factor ("PAF");
- The extent of backflow at substations;
- The potential for qualifying facilities ("QFs") to provide ancillary services and appropriate compensation; and
- The results of an independent technical review of the Astrapé Study solar integration services charge ("SISC") methodology.

("Sub 158 Additional Issues")

On October 20, 2020, DEC, DEP, and Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina ("DENC") filed a Notification of Intended Compliance with N.C. Gen. Stat. § 62-156(b), Request for Continuance of Compliance with Certain 2020 Filing Requirements and Request to Prospectively Modify Timing of Biennial Proceedings ("Continuance Motion"). In their Continuance Motion, the Companies and DENC noted FERC's issuance of Order No. 872 on July 16, 2020, as potentially identifying new avoided cost rate setting methodologies and addressing a number of issues that have the potential to impact the Companies', DENC's and the Commission's implementation of PURPA in North Carolina, once the amended regulations become effective December 31, 2020. The Companies proposed undertaking a critical and comprehensive analysis of the FERC's recently amended PURPA regulations to be able to more fully comment on them in an avoided cost filing.[1] Accordingly, the Companies and DENC requested, among other things, a continuance for addressing the Sub 158 Additional Issues until November 1, 2021. Through its Reporting Order, the Commission allowed the request and directed the Companies to file their plans to address the Sub 158 Additional Issues in the November 2021 avoided cost filing through an initial filing on December 7, 2020, and to thereafter provide updates on their progress on the Sub 158 Additional Issues at least every 45 days until the issues are fully addressed.

The Companies update the Commission and other interested parties on their progress in addressing the additional issues, as follows:

<u>Update on Activities to Address Sub 158 Additional Issues</u>

- **<u>Real-Time "As Available" Pricing Tariffs</u>**

The Companies intend to discuss the issue of real-time pricing avoided cost rate options with the Public Staff within the next 45 days. Order No. 872's modifications to FERC's regulations establishing approved methodologies under 18 C.F.R. 292.304 for calculating "as available" avoided cost rates potentially impact this discussion. The Companies continue to review Order No. 872 to inform the proposals that the Companies

[1] *See Order No. 872,* 172 FERC ¶ 61,041, *clarified in part*, *Order No. 872-A*, 173 FERC ¶ 61,158 (Nov. 19, 2020). Order No. 872's revisions to FERC's regulations implementing PURPA became effective December 31, 2020, which is 120 days after publication of the final rules in the Federal Register (85 FR 54638, published Sept. 2, 2020). *See* Order No. 872, at ¶ 753; PURPA then provides state regulatory authorities with one year to determine how to implement the new regulations for Utilities for which it has ratemaking authority. *See* 16 U.S.C. § 824a–3(f)(1).

will discuss with the Public Staff in June with respect to designing more real-time as-available pricing options to better conform to the intent of PURPA. The Companies also intend to engage North Carolina Sustainable Energy Association ("NCSEA"), Southern Alliance for Clean Energy ("SACE"), and Carolinas Clean Energy Business Alliance ("CCEBA") in the August timeframe on this issue.

- **Cost Increments and Decrements to the Publicly Available Combustion Turbine Cost Estimates**

The Companies held an initial discussion with the Public Staff on April 6, 2021, to discuss the Commission's prior directives on this issue, and proposed options for potential increments and decrements to combustion turbine cost estimates that should be considered in developing avoided capacity rates under the peaker methodology. The Companies understand that the Public Staff is reviewing these options and, after the Public Staff's review, they intend to discuss this issue further with the Public Staff within the next 45 days. The Companies also intend to engage NCSEA, SACE, and CCEBA in the August 2021 timeframe on this issue.

- **The Use of Other Reliability Indices to Support Development of the PAF**

In its Sub 158 Order, the Commission concluded that the PAF calculations proposed by the Companies in their November 1, 2018 Joint Initial Statement were consistent with the Commission's October 11, 2017 *Order Establishing Standard Rates and Contract Terms for Qualifying Facilities* in Docket No. E-100, Sub 148 and appropriate for purposes of that proceeding. The Commission, however, also accepted the Public Staff's recommendation to consider other reliability metrics, specifically the EUOR. Accordingly, the Commission directed the Companies and the Public Staff to address the appropriateness of using EUOR as an alternative to the Equivalent Availability ("EA") method. The Companies held an initial discussion with the Public Staff on March 11, 2021, to discuss the Commission's prior directives on this issue, and proposed options for developing the PAF for use in the upcoming 2021 avoided cost proceeding. The Companies plan to discuss this issue further with the Public Staff within the next 45 days. The Companies also intend to engage NCSEA, CCEBA, and SACE in the August timeframe on this issue.

- **<u>The Extent of Backflow at Substations</u>**

The Companies addressed this issue in their Joint Initial Statement filed in this docket on November 2, 2020, at pages 23-25, as well as in their Reply Comments filed March 5, 2021, at pages 14-15. As addressed in the Companies' Reply Comments, the Companies plan to further analyze the geographical concentrations of back-feeding substations on their systems and whether an updated rate design with and without a line loss adder based on the amount of back-feeding at a substation would be appropriate in order to provide appropriate market-based signals to QFs regarding the value of the energy at the selected location. The Companies intend to discuss the issue of line losses and geographical concentration of back-feeding substations on their systems with the Public Staff within the next 45 days. The Companies also intend to engage NCSEA, CCEBA, and SACE in the August timeframe on this issue.

- **<u>The Potential for QFs to Provide Ancillary Services and Appropriate Compensation</u>**

The Companies previously addressed the complexity of this issue, in part, in the Joint Report that they filed with DENC on the Storage Retrofit Stakeholder Meetings in Docket No. E-100, Sub 158 on September 16, 2020 ("Stakeholder Report"). In that Stakeholder Report, the Companies cited regulation and balance ancillary services for offsetting solar volatility as the only quantified ancillary service eligible for payment in North Carolina. These two ancillary services were quantified for purposes of quantifying solar integration costs only after a contentious and lengthy proceeding in Docket No. E-100, Sub 158. To date, no QFs have demonstrated their ability to avoid imposing increased ancillary costs by operating as controlled solar generators. Therefore, the Companies continue to contend that this complex issue requires additional technical, legal, and regulatory review. Primarily, with respect to the potential of QFs providing ancillary services, the Companies will continue to consider how to hold their customers harmless from costs incurred by the Companies from the addition of intermittent QFs and any potential provision of ancillary services from QFs. The Companies had preliminary discussions of this issue with the Public Staff in the context of the recent Storage Retrofit Stakeholder Meetings, and they intend to have preliminary discussions with the Public Staff on this complex issue in the next 45 days. The Companies also will engage with stakeholders as previously planned in the August 2021 timeframe.

- **The Results of an Independent Technical Review of the Astrapé Study SISC Methodology**

As discussed in prior Reports, the Companies completed formation of the SISC independent technical review committee ("TRC") in early March 2021. Technical experts from the Pacific Northwest National Laboratory, the National Renewable Energy Laboratory, and Lawrence Berkeley National Laboratory are participating in the TRC as "Technical Leads" for the purpose of supporting an in-depth technical review of the SISC study methodology and modeling. Representatives from the Public Staff and the South Carolina Office of Regulatory Staff ("SC ORS") are also participating in the TRC as "regulatory observers." The Brattle Group ("Brattle") is acting as the TRC Principal consultant. Brattle is independently coordinating the TRC meetings with the Technical Leads and regulatory observers and will author the TRC report for the Companies to incorporate into their 2021 avoided cost filings in North Carolina and South Carolina.

During the past 45 days, the TRC held bi-weekly meetings on April 23, May 7, May 21, and June 4. Draft results have been calculated by Astrapé Consulting, LLC and were first presented at the May 21 TRC meeting. The TRC is planning to complete its work by June 18, and Brattle is targeting issuing a report by June 30. The Companies plan to coordinate a presentation by the TRC to interested stakeholders in mid-July to describe the results of its independent technical review, as summarized in the TRC's report.

- **FERC's Order No. 872**

The Companies are continuing to review Order No. 872 and its impact on PURPA implementation in North Carolina. As they committed to do in their Continuance Motion, the Companies intend to develop their positions on Order No. 872's impact on PURPA implementation in North Carolina and to engage the Public Staff and other stakeholders on their positions in advance of their November 2021 filing, likely during the planned stakeholder engagement sessions in August 2021.

Conclusion

As set forth above, the Companies plan to engage the Public Staff on the outstanding Sub 158 Additional Issues and to continue to facilitate the work of the SISC TRC. The Companies also commit to engage with stakeholders on the Companies' positions with respect to the other Sub 158 Additional Issues in the August 2021 timeframe. The Companies will also continue to look for areas where consensus could be achieved with the Public Staff and the other stakeholders as they continue to develop their 2021 avoided cost filing.

Respectfully submitted, this the 7th day of June, 2021.

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CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's Fifth Joint 45-Day Progress Report, in Docket No. E-100, Sub 167, has been served by electronic mail, hand delivery, or by depositing a copy in the United States Mail, 1st Class Postage Prepaid, properly addressed to parties of record.

This the 7th day of June, 2021.

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