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July 19, 2024

VIA ELECTRONIC FILING

Ms. A. Shonta Dunston, 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 Informational Notice Regarding Power Quality Stipulations Docket Nos. E-7, Sub 1276 and E-2, Sub 1300

Dear Ms. Dunston:

I write on behalf of Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP") (collectively, the "Companies") to provide an update to the North Carolina Utilities Commission ("Commission") regarding the power quality stipulations reached with the Carolina Industrial Group for Fair Utility Rates, III and II (collectively, "CIGFUR"), respectively, in connection with the above-referenced dockets.

On May 1, 2023, DEP and CIGFUR II filed an Agreement and Stipulation of Settlement in Docket No. E-2, Sub 1300 ("DEP Power Quality Stipulation"). This agreement, *inter alia*, provided that DEP would work with CIGFUR II to install power quality monitoring technology at industrial customer sites as part of a power quality pilot program to address power quality issues raised by CIGFUR II in that docket. In its August 18, 2023 *Order Accepting Stipulations, Granting Partial Rate Increase and Requiring Public Notice* in Docket No. E-2, Sub 1300 ("DEP Rate Case Order"), the Commission declined to approve the DEP Power Quality Stipulation for the reasons stated in the Evidence and Conclusions for Finding of Fact No. 39.

On August 22, 2023, DEC and CIGFUR III filed an Agreement and Stipulation of Settlement in Docket No. E-7, Sub 1276 ("DEC Power Quality Stipulation") which, *inter alia*, provided that DEC and CIGFUR III would collaborate to design a pilot program to install power quality monitoring technology that was responsive the Commission's concerns in Finding of Fact No. 39 in the DEP Rate Case Order, or in the alterative, to discuss another mutually agreed upon alternative. In its December 15, 2023 *Order Accepting Stipulations, Granting Partial Rate Increase and Requiring Public Notice and Modifying Lincoln CT CPCN Conditions* in Docket No. E-7, Sub 1276 ("DEC Rate Case Order"), the Commission accepted the DEC Power Quality Stipulation.

Since the issuance of the DEC Rate Case Order, the Companies have met and conferred with CIGFUR on several occasions to discuss options to address CIGFUR's power quality issues in furtherance of the DEC and DEP Power Quality Stipulations. The Companies have independently been implementing an OpenXDA Framework over the past few years to gain better insight into their grid performance. This project involves leveraging and connecting existing grid assets, including but not limited to digital fault recorders, power quality meters, relays, and revenue meters. This framework has capabilities to allow integration through open-source software to provide additional system-wide benefits including automated grid asset management monitoring and fault analysis, power quality dashboards and analytics, and an e-mail notification system for proactive notification of customers susceptible to recorded power quality events. In addition, these systems will provide the Companies with greater intelligence on the impacts of inverter-based generators interconnected to the Companies' grids. Peer utilities including the Tennessee Valley Authority, Dominion Virginia Electric and Power Company, Georgia Power Company, Georgia Transmission Corporation, and Hawaiian Electric (with heavy solar penetration) are already using these systems, and Duke Energy Florida has completed a proof of concept of the framework on some devices.

As a result of the Companies' collaboration with CIGFUR, the parties have agreed that DEC and DEP will not seek approval for pilot power quality programs, but instead will implement additional capabilities of the OpenXDA framework as a system project in satisfaction of the DEC and DEP Power Quality Stipulations. As the project work continues, some additional grid assets may need to be deployed or tested and the Companies will partner with CIGFUR and other customers as appropriate to refine the use cases and deployment of any new assets. This project will provide enhanced power quality monitoring across the Companies' grids, thereby benefitting all of the Companies' customers.

The Companies, CIGFUR, and the Public Staff have met jointly to review this project. I am authorized to represent to the Commission that these parties have no objection to the Companies proceeding as outlined herein to satisfy the terms of the DEC and DEP Power Quality Stipulations. Costs associated with this project would be subject to review for reasonableness and prudence in a future ratemaking proceeding.

If you have any questions, please do not hesitate to contact me. Thank you for your attention to this matter.

Sincerely,

Jack E. Jirak

cc: Parties of Record

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's Informational Notice Regarding Power Quality Stipulations, in Docket Nos. E-7, Sub 1276 and E-2, Sub 1300, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid, to parties of record.

This, the 19th day of July 2024.

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