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VIA Electronic Filing

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

Re: *Comments Regarding Comprehensive Compliance with NCIP Section 6.5*
Docket No. E-100, Sub 101

Dear Ms. Dunston:

Enclosed for filing in the above-referenced proceeding on behalf of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC is their Comments Regarding Comprehensive Compliance with NCIP Section 6.5 pursuant to the Commission's April 27, 2022 Order Requesting Comments Regarding Comprehensive Compliance with NCIP Section 6.5.

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

Very truly yours,

/s/E. Brett Breitschwerdt

EBB:sbc

Enclosure

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-100, SUB 101

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of)	DUKE ENERGY CAROLINAS, LLC’S
Petition for Approval of Revisions to)	AND DUKE ENERGY PROGRESS,
Generator Interconnection Standards)	LLC’S COMMENTS REGARDING
)	COMPREHENSIVE COMPLIANCE
)	WITH NCIP SECTION 6.5

NOW COME Duke Energy Carolinas, LLC (“DEC”) and Duke Energy Progress, LLC (“DEP”) (collectively the “Companies” or “Duke Energy”) pursuant to the North Carolina Utilities Commission’s (“Commission”) April 27, 2022 *Order Requesting Comments Regarding Comprehensive Compliance with NCIP Section 6.5* (the “Order”) and hereby file the instant Comments, which provide the information requested by the Commission regarding compliance with Section 6.5 of the North Carolina Interconnection Procedures (“NCIP”).

Specifically, the Commission’s Order directed the Companies to “describe [their] plan to comply with NCIP subsections 6.5.3 and 6.5.4” including by providing “an explanation of any criteria the utilities use to determine which facilities to inspect and when.” Order, at 2-3 (Ordering Paragraph 4). In addition, the Commission noted that the Companies’ plan for compliance with Section 6 as to Generating Facilities interconnected *prior* to June 19, 2019 (“Uninspected Facilities”) is applicable to facilities larger than 1 MW in size. On the other hand, Attachment A (Functional Settings for Distributed Energy Resources (“DER”) Interconnected to Duke Energy Distribution System (“DER Functional Settings”)) to Duke Energy’s December 22, 2021 filing regarding Risks Posed

by Inverter-Based Resources applies to DER resources that are 250 kW or greater. The Commission therefore directed the Companies to “provide an explanation regarding the differing criteria applied to DER Functional Settings and NCIP Section 6.5[.]” *Id.* at 3 (Ordering Paragraph 4).¹

I. NCIP Section 6.5.3 Compliance Plans and Criteria

NCIP Section 6.5.3 provides that the Utility is “entitled, on a periodic basis, to inspect medium voltage AC side of each Interconnected Generating Facility on a reasonable schedule determined by the Utility in accordance with the inspection cycles applicable to its own distribution schedule” (“periodic inspections”). Section 6.5.3 also provides that the Interconnection Customer must pay “the actual cost of such inspection.” Like NCIP Section 6.5.2, the plain language of Section 6.5.3 is permissive, granting the Utility a right to conduct periodic inspections without mandating that such inspections be performed on any specific schedule. In other words, performance of periodic inspections is subject to the Utility’s discretion, which is informed by the Companies’ experience managing generator interconnections as well as other Good Utility Practice considerations.

As the Commission is aware, Duke’s recent efforts with respect to inspections have prioritized developing and implementing procedures to conduct an initial inspection, and subsequent periodic inspections, of facilities interconnected prior to June 2019 that were not inspected prior to commencing parallel operation (“Uninspected Facilities”). The Pro Forma Memorandum of Agreement (“Pro Forma MOA”) that owners and/or operators of Uninspected Facilities were required to execute by April 26, 2022 provided Uninspected Facility Interconnection Customers with two options: (1) to develop and

¹ Order, at 2.

administer a Self-Administered Compliance Program that comports with the requirements set out in the Pro Forma MOA; or (2) to allow the Utility or its designated contractor to perform the inspections required by NCIP 6.5.3 and 6.5.3 at the Owner's expense. In addition, Section 2(c) of the Pro Forma MOA notified owners of Uninspected Facilities that failure to execute an MOA and designate an inspection program "shall be deemed to be acceptance of the Duke Energy-Approved Third Party Administered Inspection Program Option . . . and result in Duke's scheduling and performance of the inspections[.]"

Now that the deadline to execute the Pro Forma MOA has passed and Uninspected Facility Interconnection Customers have selected—whether directly or by default through failure to return an executed Pro Forma MOA—an inspection option, all Uninspected Facilities will progress toward completing an initial inspection. Such inspections will be performed within 18 months of execution for facilities interconnected on or before August 31, 2015 and within three (3) years of execution for facilities interconnected after August 31, 2015. Section 6 of the Pro Forma MOA further provides that Periodic MV Inspections shall be completed after the initial MV Inspections at least once every 5 years.

With the process for initial and periodic inspections of Uninspected Facilities now in place, Duke Energy plans to continue discussions with stakeholders regarding implementation of periodic inspection of other Generating Facilities pursuant to Section 6.5.3. In doing so, Duke Energy will build upon the efforts that went into developing the periodic inspection requirements detailed in Section 6 of the Pro Forma MOA, which requires periodic inspection every five (5) years, and plans to raise this issue with

stakeholders to discuss developing formal processes and criteria supporting performance of NCIP Section 6.5.3 inspections beginning with the Duke Energy Distributed Energy Resource Interconnection Technical Standards Review Group (“TSRG”) meeting scheduled for July 20, 2022.

II. NCIP Section 6.5.4 Compliance Plans and Criteria

NCIP Section 6.5.4 provides that the Utility is:

[E]ntitled to inspect medium voltage AC side of each Interconnected Generating Facility in the event that the Utility identifies or becomes aware of any condition that (1) has the potential to either cause disruption or deterioration of service to other customers served from the same electric system or cause damage to the Utility’s System or Affected Systems, or (2) is imminently likely to endanger life or property or cause a material adverse effect on the security of, or damage to the Utility’s System, the Utility’s Interconnection Facilities or the systems of others to which the Utility’s System is directly connected.

Even before the adoption of the Section 6 inspection provision, Duke Energy has successfully addressed the type of issues described in NCIP Section 6.5.4 when it becomes aware of such conditions. In the Companies’ experience, inspection of the medium voltage AC side of a Generating Facility is not always required to address such conditions. Because 6.5.4 allows the Companies to use their discretion in their decision to conduct a periodic inspection, the Companies determination as to whether an inspection will aid in addressing conditions causing potential or identified safety, power quality, and/or reliability risks is made on case-by-case basis.

Generally, Duke Energy’s NCIP Section 6.5.4 compliance efforts are part of the day-to-day operations of the power system. The Companies may also rely on Section 3.4 of the IA authorizing the Utility to take action to ensure safe and reliable parallel

operation of interconnected generating facilities if Emergency Conditions (3.4.1) or Adverse Operating Effects (3.4.4) are identified.

III. Explanation of Differing Criteria Applied to DER Functional Settings and NCIP Section 6.5

The applicability of the DER Functional Settings criteria differs from the NCIP Section 6.5 criteria in that it applies to certain projects *during* the interconnection study process. The DER Functional Settings criteria applies to all new utility-scale solar Interconnection Customers in North Carolina that are greater than or equal 250 kilowatts (kW) in maximum physical export capacity. This is the threshold established for determining whether a standalone generating facility is considered to be “utility-scale” per the ‘DEC & DEP: October 2017 Distributed Energy Resource (DER) Method Of Service guidelines for DER no larger than 20 MW located on the Duke Energy website.²

Conversely, the inspection provisions of NCIP Section 6.5 applies to certain projects *after the interconnection study process has concluded and the Interconnection Customer is requesting to operate in parallel under its executed Interconnection Agreement (“IA”)*. Since 2017, the Companies have consistently applied the NCIP Section 6.5 inspection and commissioning process to all new utility scale solar Interconnection Customers in North Carolina that are greater than or equal to 1 megawatt (MW) in maximum physical export capacity. When a Generating Facility is 1 MW or greater, the amount of customer-built MV facilities connecting to Duke’s network presents a higher level of grid safety, power quality, and/or reliability risks when compared to Generating Facilities less than 1 MW. This higher level of risk is also addressed by the requirement for Company-owned and operated interconnection

² DEC & DEP: October 2017 Distributed Energy Resource (DER) Method of Service guidelines for DER no larger than 20 MW, available at [method-of-service-guidelines-20171013.pdf \(duke-energy.com\)](https://www.duke-energy.com/method-of-service-guidelines-20171013.pdf).

protection equipment (including a recloser) to be installed at each Generating Facility 1 MW or greater as detailed in DEC and DEP's 'Requirements For Electric Service And Meter Installations' publication located on the Duke Energy website.³

IV. Conclusion

The Companies have devoted significant resources over the last two years to consider the applicability and implementation of the NCIP Section 6 inspection provisions through the TSRG stakeholder meetings, in comments in this docket, and in the preparation and execution of Pro Forma MOAs with owners and/or operators of Uninspected Facilities. Initial inspections of Uninspected Facilities will begin over the next 18 months to three years, and the Companies plan to continue discussion periodic inspections of other facilities with stakeholders going forward.

Respectfully submitted, this the 26th day of May, 2022.

E. Brett Breitschwerdt

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³ Requirements for Electric Service and Meter Installations, North Carolina and South Carolina, at p. 113 (April 2022), available at [service-requirements-manual.pdf \(azuredge.net\)](https://www.azuredge.net/service-requirements-manual.pdf).

*Attorneys for Duke Energy Carolinas, LLC
and Duke Energy Progress, LLC*

CERTIFICATE OF SERVICE

I hereby certify that a copy of the *Comments Regarding Comprehensive Compliance with NCIP Section 6.5* as filed in Docket No. E-100, Sub 101 was served via electronic delivery or mailed, first-class, postage prepaid, upon all parties of record.

This, the 26th day of May, 2022.

/s/ E. Brett Breitschwerdt

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