

Memorandum of Agreement on Optional Procedure to Implement Periodic Medium Voltage Construction Safety and Reliability Inspection Requirements under NCIP Sections 6.5.2 and 6.5.3

This Memorandum of Agreement is entered into and agreed to by and between Duke Energy Carolinas, LLC (“DEC”), Duke Energy Progress, LLC (“DEP” and collectively with DEC, “Duke” or “Utilities”), and Strata Interconnection Customers as defined herein and listed on Attachment A, and together with Duke (the “Parties”) (the “MOA”). The MOA memorializes the Parties’ agreement regarding a reasonable optional self-administered procedure to implement periodic medium voltage construction safety and reliability inspection requirements under Sections 6.5.2 and 6.5.3 of the North Carolina Interconnection Procedures effective on June 14, 2019 (“NCIP”).

## 1. Background

- a. Duke is responsible for ensuring safe and reliable power system operations, including ensuring reliable power delivery to retail customers as well as reliable interconnection and parallel operation with Interconnection Customers. This includes overseeing the Generating Facility commissioning inspection as well as certain periodic post-commissioning inspections of interconnected Generating Facilities’ medium voltage equipment under NCIP Sections 6.5.2 and 6.5.3.
- b. NCIP Section 6.5.2 provides that the Utilities are authorized to conduct an initial inspection of the medium voltage AC side of each Generating Facility (including assessing that the anti-islanding process is operational) that was not inspected prior to commencing parallel operation (“Initial Inspection”). NCIP Section 6.5.3 provides that the Utilities shall also be entitled, on a periodic basis, to inspect the 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 system (“Periodic Inspections”). Interconnection Customers are responsible for Duke’s costs of implementing Initial Inspection and Periodic Inspection requirements of the NCIP.<sup>1</sup>
- c. Duke believes that Sections 6.5.2 and 6.5.3 apply to Legacy Facilities, as further defined herein, whereas Strata Interconnection Customers believe that Sections 6.5.2 and 6.5.3 do not apply to Generating Facilities that have executed Interconnection Agreements prior to June 14, 2019, the effective date of the NCIP. Despite those differences of opinion, the Parties wish to enter into this MOA to resolve the issues between the Parties.
- d. Since January 2020, Duke, Strata Solar, LLC (“Strata Solar”) on behalf of Strata Interconnection Customers, and other Technical Standards Review Group (“TSRG”) participants have been developing procedures to implement the inspection and commissioning processes. Technical representatives of Duke and Strata Solar on behalf of Strata Interconnection Customers have engaged in further discussions

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<sup>1</sup> These provisions were incorporated into the NCIPs as of June 14, 2019. *See Order Approving Revised Interconnection Standard and Requiring Reports and Testimony*, Docket No. E-100, Sub 101 (June 14, 2019).

- outside of the TSRG regarding an optional self-administered procedure to meet the objectives and requirements of NCIP Sections 6.5.2 and 6.5.3. The Parties agree that a properly implemented “Self-Administered Compliance Program” designed to ensure the operational integrity of Legacy Facilities will meet the Initial Inspection and Periodic Inspection requirements of the NCIP.
- e. The Utilities support the optional Self-Administered Compliance Program agreed to with Strata Interconnection Customers in this MOA as representative of Good Utility Practice for Legacy Facilities. Through the TSRG, Duke will inform other Interconnection Customers of the option to commit to a Self-Administered Compliance Program substantially similar to, but in no event with lesser requirements than that agreed to in and pursuant to this MOA.

## 2. Definitions

- a. Terms used in this MOA that are not defined herein shall be interpreted consistent with Attachment 1 of the NCIP.
- b. “Strata Interconnection Customers” – Interconnection Customers affiliated with Strata Solar with fully executed Interconnection Agreements (“NC IA”) prior to June 14, 2019 that agree in writing to operate under this MOA by being included on Attachment A to the MOA and adhere to the Self-Administered Compliance Program requirements. Strata Interconnection Customers will provide Attachment A to Duke within 10 Calendar Days after the date that the Parties execute the MOA. The Parties agree that Strata Interconnection Customers can update Attachment A in the event that the list of Legacy Facilities is incomplete or incorrect.
- c. “Legacy Facilities” – Distribution-connected Generating Facilities owned by Strata Interconnection Customers.
- d. “Outside-The-Fence Facilities” – Interconnection Facilities and related equipment which are owned by Strata Interconnection Customers and are located in areas accessible to the general public or local landowners. This does not include Strata Interconnection Customers’ facilities located inside fenced or controlled areas.

## 3. General Principles of Agreement

- a. Adherence to NCIP Sections 6.5.2 and 6.5.3. Duke and the Strata Interconnection Customers agree that the terms of this MOA will satisfy compliance with NCIP Sections 6.5.2 and 6.5.3.
- b. Self-Administered Compliance Program. Duke agrees that a reasonable Periodic Inspection program for Outside-The-Fence Facilities, as proposed by Strata Interconnection Customers and upon written acceptance by Duke, can provide the Utilities with reasonable assurance of the continued safe and reliable operations of medium voltage equipment at Legacy Facilities interconnected to the DEC and DEP distribution systems. Strata Interconnection Customers agree to develop a Self-Administered Compliance Program meeting the objectives and requirements

described in Sections 4 through 8 of this MOA within 180 Calendar Days, and Duke agrees to continue to work with Strata Interconnection Customers to implement the Self-Administered Compliance Program. The Self-Administered Compliance Program will provide that in the event that Duke identifies any deficiencies in the execution and administration of the Self-Administered Compliance Program, Duke will provide Strata Interconnection Customers with written notice and a reasonable period of not less than 30 Calendar Days to cure any such deficiencies before terminating Duke's acceptance of this Self-Administered Compliance Program as meeting the requirements of NCIP Sections 6.5.2 and 6.5.3.

- c. Interconnection Agreements not modified. Duke and Strata Interconnection Customers agree that the terms and conditions of each Strata Interconnection Customer's NC IA shall remain in full force and effect and shall not be modified or superseded by the terms of this MOA. The Utilities reserve all rights under the NC IA to disconnect the Generating Facility should DEC or DEP determine, at any time consistent with Good Utility Practice, that disconnection is warranted to address an Emergency Condition or an adverse operating effect, as those terms are defined or used in the NC IA.

#### **4. DER Functional Settings Guidance Document**

- a. Within 120 Calendar Days after the date that the Parties execute this MOA, Duke, in good faith collaboration with Strata Interconnection Customers, will develop a distributed energy resource ("DER") inverter and interconnection devices functional settings compliance document ("DER Functional Settings Guidance Document") to establish minimum acceptable standards for purposes of DER functional settings compliance as a subset of the overall Self-Administered Compliance Program. This DER Functional Settings Guidance Document shall encompass the following elements:
  - i. Detail generally applicable requirements for settings of inverters and other interconnection devices as specified in the NC IA for purposes of Initial Inspections and Periodic Inspections.
  - ii. Define the Interconnection Customer's responsibility for (a) maintaining proper settings in inverters and other interconnection devices in accordance with the DER Functional Settings Guidance Document's requirements, (b) reporting setting changes, and (c) maintaining data or evidence of compliance.
  - iii. Define minimum standards for DER functional settings inspections as a component of an acceptable Self-Administered Compliance Program monitoring and assessment process.

#### **5. Adherence to Duke Construction Specifications for POI Facilities**

- a. Within 120 Calendar Days after the date that the Parties execute this MOA, Duke will provide comprehensive construction specifications in effect on July 1, 2021 to Strata Interconnection Customers for the Legacy Facilities' points of interconnection

- (“POI”) Outside-The-Fence Facilities, which is a subset of the Duke Energy Distribution Standards Manual.
- b. Strata Interconnection Customers will evaluate adherence to Duke’s comprehensive construction specifications and identify any needed corrective actions in its Outside-The-Fence Facilities inspections. In adhering to Duke’s specifications, Strata Interconnection Customers may use components from any manufacturer which meet or exceed the specifications of Duke-specified components. Strata Interconnection Customers will perform Outside-The-Fence Facility inspections as soon as practicable, with a target completion timeframe of 5 years after the date that the Parties execute this MOA.

#### **6. Initial Inspections under Self-Administered Compliance Program**

- a. Strata Interconnection Customers will perform Initial Inspections of applicable inverter and interconnection device settings for all Legacy Facilities, as soon as practicable, with a target completion timeframe of 3 years after the date that the Parties execute this MOA. Within 120 Calendar Days after the date that the Parties execute this MOA, Strata Interconnection Customers shall provide to Duke an initial schedule for these Initial Inspections during the target 3-year timeframe and shall issue updates on the status of the Initial Inspections to Duke twice annually until the Initial Inspections have been completed. For each Legacy Facility, the Strata Interconnection Customer shall provide reasonable written supporting documentation, attested to by the Strata Interconnection Customer, to Duke of compliance with the applicable inverter and interconnection device settings set forth in the NC IA within 30 Calendar Days of completion of the Initial Inspection.
- b. As part of the Initial Inspection process, Strata Interconnection Customers will perform a one-time effort to (a) validate the single-line diagram (“SLD”) of all Legacy Facilities, and (b) document the Duke POI right-of-way access for Duke personnel. When validating the SLD of all Legacy Facilities, Strata Interconnection Customers shall consider installed critical components which differ from what is shown on the SLD, but for which the difference in specifications from what is indicated on the SLD do not constitute a material impact on safety or reliability of the Utility’s system, in compliance with the NCIP. Duke, in good faith collaboration with, Strata Interconnection Customers will define a list of the critical components to be validated on the SLDs (“Critical Components List”). Duke and Strata Interconnection Customers commit to completion of this Critical Components List within 120 Calendar Days after the date that the Parties execute this MOA.

#### **7. Periodic Inspections under Self-Administered Compliance Program**

- a. Periodic Inspections shall be completed after the Initial Inspections for the Outside-The-Fence Facilities at least once every 5 years. Strata Interconnection Customers will perform Periodic Inspections to ensure that the Outside-the-Fence Facilities continue to meet Duke construction specifications for Strata Interconnection

- Customers' POI Outside-The-Fence Facilities and requirements for maintenance of rights-of-way access for Duke POI facilities, as otherwise provided in this MOA.
- b. Strata Interconnection Customers will adhere to the DER Functional Settings Compliance Document in completing Periodic Inspections, including confirming through remote query or direct field acquisition, settings of the Legacy Facility's inverters, relays, and grid control devices.
  - c. Strata Interconnection Customers will perform a "cease-to energize test" (aka an "anti-islanding test") as part of the scope of its Periodic Inspection of Outside-The-Fence Facilities. Duke and Strata Interconnection Customers will work together to further identify the best approach of requiring and performing this anti-islanding test. Duke and Strata Interconnection Customers commit to completion of such best approach within 120 Calendar Days after the date that the Parties execute this MOA.

#### **8. Maintenance of Right-Of-Way Access for Duke POI facilities**

- a. Within 120 Calendar Days after the date that the Parties execute the MOA, Duke shall provide Strata Interconnection Customers with guidance documentation for right-of-way access and maintenance for Duke POI facilities. The right-of-way guidance documentation shall be consistent with the access and maintenance requirements applicable to Duke facilities and rights-of-way for Duke facilities.
- b. Strata Interconnection Customers will provide one-time photographic documentation to Duke that right-of-way access for Duke POI facilities is being properly maintained in a manner consistent with Duke standards and requirements. Strata Interconnection Customers will complete the validation process within 5 years after the date that the Parties execute this MOA.
- c. As part of Strata Interconnection Customers' Self-Administered Compliance Program, Strata Interconnection Customers will include information about preventive maintenance for rights-of-way access for which Strata Interconnection Customers have legal control for Duke POI facilities, consistent with Duke's standards and requirements set forth in the guidance documentation to be provided pursuant to Section 8.a. above. Strata Interconnection Customers commit to completion of this task within 120 Calendar Days after the date that Duke provides its guidance documentation pursuant to Section 8.a. above.

#### **9. Compliance Audit Procedures under Self-Administered Compliance Program**

In addition to all rights under the NC IA, Duke has the right to require a compliance audit of any Outside-the-Fence Facilities for Strata Interconnection Customers participating in the Self-Administered Inspection Program in the event of adverse operating effects or customer complaints based on adverse operating effects, as that term is used in Section 3.4.4 of the NC IA. Strata Interconnection Customers shall fully cooperate with Duke to resolve any identified deficiencies in Strata Interconnection Customers' Self-Administered Inspection Program within 30 Calendar Days of written notice from Duke. Strata Interconnection Customers will be

responsible for Duke’s costs of any compliance audit required under this Section, as provided for in NCIP Sections 6.5.3 and 6.5.4.

**10. Enforceability**

This MOA requires several executory tasks to fully implement the terms and conditions of this MOA, including (a) Strata Interconnection Customers to develop the Self-Administered Compliance Program subject to Duke’s review and acceptance, (b) Duke to develop the DER Functional Settings Guidance Document in good faith collaboration with Strata Interconnection Customers, (c) Duke to provide comprehensive construction specifications in effect on July 1, 2021 to Strata Interconnection Customers for Outside-The-Fence Facilities, (d) Duke to develop the Critical Components List in good faith collaboration with Strata Interconnection Customers, (e) Duke and Strata Interconnection Customers to work together to identify the best approach to performing anti-islanding testing, and (f) Duke to provide Strata Interconnection Customers with guidance documentation for right-of-way access and maintenance of Duke POI facilities. In the event that the Parties are unable to reach agreement, where agreement is required, or the resulting document or requirement is not acceptable to the recipient party, where agreement is not required, either party may, by written notice to the other party, terminate this MOA, and the Parties will be released from all obligations thereunder.

**11. Limitation**

This MOA is limited to meeting the objectives and requirements of NCIP Sections 6.5.2, 6.5.3, and 6.5.4 and shall not be used or cited for any other purpose. For the avoidance of doubt, nothing in this MOA or in any document or agreement contemplated by this MOA shall be deemed to subject Strata Interconnection Customers or any Legacy Facilities to the 2019 NCIP or any portion thereof to which such Legacy Facility has not otherwise been made subject as provided for in this MOA.

IN WITNESS WHEREOF, the Parties have signed, executed, and agreed to the foregoing Memorandum of Agreement on this 3<sup>rd</sup> day of August, 2021.

Duke Energy Carolinas, LLC and Duke Energy Progress, LLC

By: \_\_\_\_\_  
Jack E. Jirak  
Deputy General Counsel

Strata Solar, LLC, in its authorized capacity on behalf of the Strata Interconnection Customers identified in Attachment A

By: Strata Manager, LLC, the Manager of each

By: \_\_\_\_\_  
Markus Wilhelm, Manager

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Aug 05 2021

ATTACHMENT A

Strata Interconnection Customers Participating in Self- Administered Compliance Program

<u>Interconnection Customer:</u>	<u>Interconnecting Utility:</u>	<u>Queue Number:</u>	<u>Target Date for Initial Inspection</u>