



Hayes J. Finley Associate General Counsel

NCRH 20 / P.O. Box 1551 Raleigh, NC 27602

o: 919.546.2089 Hayes.Finley@duke-energy.com

June 28, 2024

### **VIA Electronic Filing**

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

> Re: Duke Energy Carolinas, LLC, and Duke Energy Progress, LLC Petition for Authorization of Provisional Interconnection Service Option and Limited Waiver of North Carolina Interconnection Procedures for 2022 DISIS Interconnection Customers Docket No. E-100, Sub 101

Dear Ms. Dunston:

Enclosed for filing in the above-referenced proceeding is Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's <u>Petition for Authorization of Provisional</u> <u>Interconnection Service Option and Limited Waiver of North Carolina Interconnection</u> <u>Procedures for 2022 DISIS Interconnection Customers.</u>

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

Very truly yours,

Hayes J. Finley

Enclosure

### STATE OF NORTH CAROLINA UTILITIES COMMISSION RALEIGH

DOCKET NO. E-100, SUB 101

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BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Petition for Approval of Revisions to Generator Interconnection Standards PETITION FOR AUTHORIZATION OF PROVISIONAL INTERCONNECTION SERVICE OPTION AND LIMITED WAIVER OF NORTH CAROLINA INTERCONNECTION PROCEDURES FOR 2022 DISIS INTERCONNECTION CUSTOMERS

NOW COMES Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP," and, together with DEC, the "Companies"), pursuant to the North Carolina Utilities Commission's ("Commission") directive that all proposed modifications to the Commission-approved *pro forma* North Carolina Interconnection Agreement ("NCIA") shall be presented to the Commission for review and approval<sup>1</sup> and Commission Rule R1-5, and hereby respectfully petition the Commission for an Order authorizing modifications to the NCIA that would enable the Companies to offer a provisional interconnection service option to Interconnection Customers in the 2022 Definitive Interconnection System Impact Study ("2022 DISIS") Cluster now in the Interconnection Agreement-execution phase. The Companies also request a limited waiver to provide such Interconnection Customers a payment option to partially use Financial Security to reduce the carrying cost of long-

<sup>&</sup>lt;sup>1</sup> Order Regarding Duke Settlement Agreement with Interconnection Customers, Docket No. E-100, Sub 101 at 2 (Nov. 1, 2016).

duration System Upgrades.<sup>2</sup> Specifically, the Companies seek Commission authorization to include a new optional Appendix 7 to the pro forma NCIA, with an effective date of September 1, 2024,<sup>3</sup> and for a limited waiver of the language in Section 5.2.4 of the North Carolina Interconnection Procedures ("NCIP") and Article 6 of the NCIA to allow the Companies to accept Financial Security reasonably acceptable to the Companies for up to 50% of the assigned System Upgrades allocated to an Interconnection Customer. Together, the waiver and targeted modification to the NCIPs will facilitate more efficient interconnection of Interconnection Customers in the 2022 DISIS Cluster study process and would, therefore, further several regulatory and statutory objectives. Approval of this Petition would further the Companies' Execution Plan to add new solar generation to the Companies' system consistent with the emissions reduction goals set forth in N.C.G.S. § 62-110.9 and the Commission's related directive for the Companies to target the addition of 2,350 megawatts ("MW") of new solar resources in the near term.<sup>4</sup> The limited authorization and waivers requested in the Petition are also initially being proposed for 2022 DISIS Cluster Interconnection Customers at this time to gain experience and ensure that both these expanded interconnection service options and payment arrangements are reasonable, consistent with Good Utility Practice, and will ensure that reliability of the grid is maintained or improved for all customers.

<sup>&</sup>lt;sup>2</sup> Capitalized terms used herein shall have the same meanings specified in the Glossary of Terms in the North Carolina Interconnection Procedures.

<sup>&</sup>lt;sup>3</sup> The Companies are requesting Appendix 7 be effective on September 1, 2024, in order to align with the requested effective date of similar provision interconnection service request filings made in South Carolina and at the Federal Energy Regulatory Commission and to ensure equitable treatment of all Interconnection Customers that seek provisional interconnection service.

<sup>&</sup>lt;sup>4</sup> Order Adopting Initial Carbon Plan and Providing for Future Planning, Docket No. E-100, Sub 179 at 89 (Dec. 30, 2022) ("Carbon Plan Order").

In support of this Petition, the Companies respectfully state as follows:

### BACKGROUND

1. The Commission has jurisdiction over the physical interconnection of certain generating facilities to the Companies' systems pursuant to North Carolina law and certain federal regulations<sup>5</sup> and has established interconnection procedures, forms, and agreements through proceedings in the above-captioned docket to govern state-jurisdictional generator interconnections ("Interconnection Standard").<sup>6</sup>

2. Since first establishing Docket E-100, Sub 101 in 2004, the Companies, the Public Staff – North Carolina Utilities Commission ("Public Staff"), generation developers, and other stakeholders have engaged in extensive and collaborative efforts to refine the interconnection study process to promote efficiency while maintaining fairness to both generator interconnection customers and load and ensuring the reliability of the grid is maintained.

3. For example, on July 30, 2018, to support implementing the Competitive Procurement of Renewable Energy ("CPRE") Program solicitation process established by Session Law 2017-192, the Companies sought Commission approval of limited modifications to the NCIP to enable a grouping study process specifically for projects procured through the CPRE Program.<sup>7</sup> The Companies' proposed modifications provided for a clustered grouping study of Interconnection Customers in the CPRE request for proposals in order to facilitate a more efficient study process and to assist the Companies

<sup>&</sup>lt;sup>5</sup> See N.C.G.S. § 62-133.8(i)(4); 18 CFR §§ 292.306 and 292.308.

<sup>&</sup>lt;sup>6</sup> Most recently, the Commission approved the current Interconnection Standard by Order issued October 11, 2021. *See Order Granting Petition in Part,* Docket No. E-100, Sub 101 (Oct. 11, 2021).

<sup>&</sup>lt;sup>7</sup> Motion for Approval of CPRE-Related Modifications to North Carolina Interconnection Procedures, Docket No. E-100, Sub 101 at 1 (July 30, 2018).

in meeting the CPRE Program solar procurement targets.<sup>8</sup> The Commission granted the Companies' motion for use of targeted grouping studies in implementing the CPRE Program by Order issued October 5, 2018.<sup>9</sup>

4. On June 14, 2019, the Commission issued its *Order Approving Revised Interconnection Standard and Requiring Reports and Testimony*, in which it revised the generally applicable Interconnection Standard. In its June 14, 2019 Order, the Commission recognized that the legacy serial study process had become "unsustainable"<sup>10</sup> and directed the Companies to establish a stakeholder process to discuss the process of transitioning to a grouping study process.<sup>11</sup>

5. After extensive engagement with stakeholders, the Companies filed their *Queue Reform Proposal* on May 15, 2020. As explained in the Companies' proposal, under the legacy serial study process, speculative Interconnection Customers were increasingly unable to fund assigned Network Upgrades and would often withdraw from the process.<sup>12</sup> When an Interconnection Customer would withdraw from the serial study process, 100% of the identified Upgrades would then be assigned to the next earliest-queued Interconnection Customer, which would often respond by also withdrawing from the process for the same reasons as the prior Interconnection Customer.<sup>13</sup> Each withdrawal

<sup>&</sup>lt;sup>8</sup> *Id.* at 1, 6.

<sup>&</sup>lt;sup>9</sup> Order Approving Interim Modifications to North Carolina Interconnection Procedures for Tranche 1 of CPRE RFP, Docket Nos. E-100, Sub 101, E-2, Sub 1159, and E-7, Sub 1156 at 13 (Oct. 5, 2018).

<sup>&</sup>lt;sup>10</sup> See Order Approving Revised Interconnection Standards and Requiring Reports and Testimony, Docket No. E-100, Sub 101 at 60 (June 14, 2019).

<sup>&</sup>lt;sup>11</sup> *Id.* at 66 (Ordering Paragraph No. 11).

<sup>&</sup>lt;sup>12</sup> Duke Energy Carolinas, LLC's and Duke Energy Progress, LLC's Queue Reform Proposal, Docket No. E-100, Sub 101 at 14 (May 15, 2020).

<sup>&</sup>lt;sup>13</sup> See id. at 14-15.

would restart the lengthy serial study process necessary to determine whether the Interconnection Customer could safely and reliably interconnect to the grid and to identify any required Network Upgrades. This dynamic of cascading withdrawals and re-studies created a significant obstacle to the efficient and reliable interconnection of new projects to the Companies' systems. Queue reform's new "first-ready, first-served" Definitive Interconnection Study Process was designed to solve these issues through the use of the Definitive Interconnection System Impact Study ("DISIS") Cluster process and sharing of assigned System Upgrades amongst all contributing Interconnection Customers within the Cluster.

6. On October 15, 2020, the Commission issued its *Order Approving Queue Reform*, approving the Companies' queue reform proposals and authorizing the Companies to transition from a first-in, first studied serial study process to a first-ready, first-served Cluster study process designed to address the problematic aspects of the serial approach.<sup>14</sup>

7. Since approving the Definitive Interconnection Study Process and current NCIP, the Commission also has granted DEC and DEP limited waivers to the NCIA designed to meet the unique needs of certain Interconnection Customers and promote an efficient interconnection process. Specifically, the Commission has granted two limited waivers to modify the NCIA to facilitate the interconnection of projects that were subject to federal laws and regulations that were incompatible with the NCIA.<sup>15</sup>

<sup>&</sup>lt;sup>14</sup> Order Approving Queue Reform, Docket No. E-100, Sub 101 at 2 (Oct. 15, 2020). Although the Commission approved the Companies' queue reform proposals in its October 15, 2020, Order, these revisions did not become effective until August 20, 2021, after the Public Service Commission of South Carolina and the Federal Energy Regulatory Commission ("FERC") approved complementary queue reform proposals. *See Order Implementing Queue Reform*, Docket No. E-100, Sub 101 (Aug. 19, 2021).

<sup>&</sup>lt;sup>15</sup> Order Granting Limited Waiver and Authorization to Modify the North Carolina Interconnection Agreement, Docket No. E-100, Sub 101 (July 11, 2022); Order Granting Limited Waiver and Authorization to Modify the North Carolina Interconnection Agreement, Docket No. E-100, Sub 101 (Sep. 18, 2023).

### PETITION

8. The queue reform modifications approved by the Commission in late 2021 have been largely successful in reducing cascading withdrawals and the resultant delays that were associated with the legacy serial study process.<sup>16</sup> The 2022 DISIS Cluster is now completing the Facilities Study and progressing towards NCIA-execution and funding of assigned System Upgrades and Interconnection Facilities. Specifically, a total of 31 Interconnection Customers totaling approximately 3,567 MW of capacity in the 2022 DISIS Cluster are now completing the Facilities Study process and moving toward Interconnection Agreements and 10 of these projects totaling approximately 770 MW of capacity are NC-jurisdictional Interconnection Customers subject to the NCIP and NCIA.

9. Despite the significant and valuable efficiencies created by implementing the DISIS Cluster process, one of the related challenges has been that NC-jurisdictional Interconnection customers are causing or contributing to the need for significant new Network Upgrades that, in some cases, will require many years to complete. As an example, projects completing Facilities Study and now progressing towards NCIA in the 2022 DISIS have triggered 10 new Network Upgrade projects including 24 projects exceeding 48-month lead times to construct. Certain of these Network Upgrade projects are primarily caused by large FERC-jurisdictional Interconnection Customers with the system impacts of NC-jurisdictional projects in the Cluster causing or contributing only a limited amount to the need for the Upgrade.

10. In an attempt to avoid delay due to longer-duration construction timelines and to provide an option for more efficient and accelerated interconnection for NC-

<sup>&</sup>lt;sup>16</sup> See Duke Energy Carolinas, LLC's and Duke Energy Progress, LLC's Queue Reform Informational Report, Docket No. E-100, Sub 101 at 9-10 (Mar. 25, 2024).

jurisdictional Interconnection Customers in the 2022 DISIS Cluster prior to completion of the Cluster's required Network Upgrades,<sup>17</sup> the Companies request Commission authorization to modify the NCIA to offer Interconnection Customers in the 2022 DISIS Cluster a provisional interconnection service option.

11. The Companies' provisional interconnection service option described below is largely based on the Companies' Provisional Interconnection Service option that is available to FERC-jurisdictional interconnection customers.<sup>18</sup> The Companies' FERCapproved Provisional Interconnection Service option is described in the Companies' Large Generator Interconnection Agreement and provides generating facilities a path to interconnect, possibly under limited operation, pursuant to existing and regularly updated studies prior to completion of the full interconnection process and construction of required Network Upgrades.<sup>19</sup>

12. In order to offer a provisional interconnection service option to North Carolina-jurisdictional Interconnection Customers in the 2022 DISIS Cluster, the Companies request Commission authorization to add a new optional Appendix 7 to the NCIA. The Companies' proposed Appendix 7 describes the terms on which they will offer

<sup>&</sup>lt;sup>17</sup> The Companies are also filing a similar request to offer a provisional interconnection service option to Interconnection Customers in the 2022 DISIS Cluster with the Public Service Commission of South Carolina. <sup>18</sup> Contemporaneous with this filing, the Companies are filing updates to its provisional interconnection service option with FERC.

<sup>&</sup>lt;sup>19</sup> In 2018, FERC issued Order No. 845 requiring all Transmission Providers to incorporate an optional provisional interconnection service into their interconnection procedures. Order No. 845 created a new provisional service agreement and study process for FERC-jurisdictional Interconnection Customers wherein new generating facilities could interconnect, possibly under limited operation, using interconnection service pursuant to existing and regularly updated studies in advance of completing the full interconnection process and constructing required Network Upgrades. *See Reform of Generator Interconnection Procs. & Agreements,* Order No. 845, 83 FR 21342 (May 9, 2018), 163 FERC ¶ 61,043, at PP 424, 438 (2018), *order on reh'g,* Order No. 845-A, 84 FR 8156 (Mar. 6, 2019), 166 FERC ¶ 61,137 (2019), *order on reh'g,* Order No. 845-B, 168 FERC ¶ 61,092 (2019). Section 5.9.2 of the Companies' *pro forma* LGIA on file with FERC describes the service as well as the process for requesting it.

provisional interconnection service and the process through which an Interconnection Customer in the 2022 DISIS Cluster may request the optional service in advance of its assigned Network Upgrades being completed. The Companies' proposed Appendix 7 is attached hereto as Exhibit A.

13. The Companies' proposed provisional interconnection service option would offer North Carolina-jurisdictional Interconnection Customers in the 2022 DISIS Cluster an option to interconnect and begin exporting energy on a limited, non-firm basis (i.e., potentially less than the facility's full generating capacity) pending the completion of all Network Upgrades identified as necessary through the 2022 DISIS Cluster study process.

14. An eligible Interconnection Customer interested in provisional interconnection service would submit a written request and a \$5,000 fee for Provisional Interconnection Service. After receiving a Provisional Interconnection Service Request, the Companies would then determine whether existing studies provide the information necessary to determine whether the Interconnection Customer can interconnect at its full requested interconnection service capacity (or at some more limited level) safely and reliably operate in parallel with the Utility System consistent with Good Utility Practice. If additional studies are required to make that determination, then the Interconnection Service Study Agreement and the Companies will perform a new provisional interconnection service study at the Interconnection Customer's expense.<sup>20</sup>

15. If the Companies determine through the provisional interconnection study process that the Interconnection Customer can interconnect and inject all or a part of the

<sup>&</sup>lt;sup>20</sup> The Provisional Interconnection Service Study Agreement is attached hereto as Exhibit B.

Interconnection Customer's requested output, then the Interconnection Customer will be allowed to interconnect prior to the completion of required Interconnection Facilities and System Upgrades at a capacity output level that the Companies will define in the Provisional Service Interconnection Agreement. The Companies will thereafter study (and update if appropriate) the limited capacity output level on a periodic basis after the conclusion of each cluster study at the Interconnection Customer's expense.

16. Provisional interconnection service will be terminated and firm service will be established upon completion of Interconnection Facilities and System Upgrades required for firm interconnection service at the full capacity level requested by the Interconnection Customer in its Interconnection Request.

17. In addition to seeking authorization to offer 2022 DISIS Interconnection Customers a Provisional Interconnection Service option, the Companies also request a limited waiver of the NCIPs to offer 2022 DISIS Interconnection Customers an option to partially utilize Financial Security to fund long-duration System Upgrades.<sup>21</sup> Under NCIP Section 5.2.4 and Article 6 of the NCIA, Interconnection Customers are required to fund 100% of their allocated share of Network Upgrades in cash within 45 business days after the date on which the NCIA is delivered to the Interconnection Customer for signature. However, due to the longer-duration construction times referenced above, the Companies will not be using 100% of the funds provided by 2022 DISIS Interconnection Customer to fund construction for a number of years. Accordingly, the Companies seek a waiver of NCIP Section 5.2.4 and Article 6 of the NCIA to allow Interconnection Customers in the

<sup>&</sup>lt;sup>21</sup> The Companies' payment plan option will be described in more detail in Appendix 6 to the Interconnection Customer's Interconnection Agreement ("Utility's Description of its Upgrades and Best Estimate of Upgrade Costs").

2022 DISIS to fund their allocation of Network Upgrades by providing 50% of the allocated portion via letter of credit acceptable to the Companies and to provide the remaining 50% in cash. Interconnection Customers will still be required, however, to fund 100% of their allocated portions of Network upgrades in full within 45 business days after the date on which the Companies deliver the NCIA for signature.

18. The limited waiver and authorization to modify the NCIA sought herein is appropriate because they are designed to facilitate the efficient and reliable interconnection of projects in the 2022 DISIS Cluster. Facilitating accelerated generator interconnection is consistent with the Commission's long-standing goals of improving the efficiency and effectiveness of the generator interconnection process for state-jurisdictional Interconnection Customers and is also consistent with the Carbon Plan Order and the Companies' plans to add significant new solar generation to their systems in an orderly and efficient manner that maintains or improves the reliability of the system.

19. Limiting the scope of Provisional Interconnection Service as well as the requested waiver to Interconnection Customers in the current 2022 DISIS Cluster is appropriate at this time to enable the Companies to assess the effectiveness and potential drawbacks of offering these solutions as part of the NCIP. The Companies have only relatively recently established the process for FERC-jurisdictional Interconnection Customers to seek provisional interconnection service and do not yet have experience providing provisional interconnection service to state-jurisdictional Interconnection Customers. To date, the Companies have also received limited requests for provisional interconnection Service from FERC-jurisdictional Interconnection Customers.

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20. To ensure that allowing provisional interconnection service to statejurisdictional Interconnection Customers does not introduce unintended complexities between Clusters or risk adversely impacting the reliability of their systems, it is appropriate for the Companies to begin offering it on a limited basis to a discrete group of Customers. Offering the provisional interconnection service option only to customers in the 2022 DISIS Cluster will allow the Companies to both facilitate interconnection of these customers facing long duration construction projects and also gain valuable experience with the optional provisional interconnection Service process and to evaluate whether it is appropriate to open the option to Interconnection Customers as a whole.

21. The Companies also seek a limited waiver of Section 5.2.4 and NCIA Article 6 to allow Financial Security for up to 50% of assigned System Upgrades on a limited basis to 2022 DISIS Interconnection Customers. This change is responsive to requests from Interconnection Customers to expand use of Financial Security for System Upgrades while also ensuring that such changes do not unduly shift commercial risk to the Companies and customers.

**WHEREFORE**, based upon the foregoing, the Companies respectfully request the Commission grant the authorization and limited waivers sought in this Petition for Interconnection Customers in the 2022 DISIS to:

authorize proposed Appendix 7 to the *pro forma* NCIA, with an effective date of September 1, 2024, and Provisional Interconnection Service Study Agreement attached as Exhibit A and B, respectively, to this Petition to facilitate a provisional interconnection service option for North Carolina-jurisdictional Interconnection Customers;

- grant a limited waiver of Section 5.2.4 of the NCIP and Article 6 of the
   NCIA to allow the Companies to accept a form of Financial Security
   reasonably acceptable to the Utility for up to 50% of assigned System
   Upgrades; and
- iii) grant any further relief that the Commission deems to be just and reasonable and in the public interest.

Respectfully submitted, this the 28th day of June 2024.

/s/ Hayes J. Finley

Hayes J. Finley Associate General Counsel Duke Energy Corporation Post Office Box 1551 / NCRH 20 Raleigh, NC 27602 Telephone: (919) 546-6722 hayes.finley@duke-energy.com

E. Brett Breitschwerdt Nick A. Dantonio Mason E. Maney McGuireWoods LLP 501 Fayetteville Street, Suite 500 PO Box 27507 (27611) Raleigh, North Carolina 27601 EBB Telephone: (919) 755-6563 NAD Telephone: (919) 755-6605 MEM Telephone: (919) 835-5958 bbreitschwerdt@mcguirewoods.com ndantonio@mcguirewoods.com

### **VERIFICATION**

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STATE OF NORTH CAROLINA

DOCKET NO. E-100 Sub 101

COUNTY OF WAKE

The undersigned, Jing Shi, being first duly sworn, deposes and says that she is Managing Director of Renewable Integration; that she oversaw development of the foregoing Petition for Authorization of Provisional Interconnection Service Option and Limited Waiver of North Carolina Interconnection Procedures for 2022 DISIS Interconnection Customers and knows the contents thereof; that the same are true of her own knowledge, except as to those matters stated on information and belief, and as to those matters, she believes them to be true.

Jing Shi

Sworn and subscribed before me This  $\frac{27}{\text{day}}$  of June 2024.

Hotton Notary Put

Print

My Commission Expires: 12/22/2026

[SEAL]



## Provisional Interconnection Service Option for Duke Energy Carolinas, LLC and Duke Energy Progress, LLC Interconnection Customer participants in the Definitive Interconnection System Impact Study ("DISIS") cluster process that opened January 1, 2022 (the "2022 DISIS Cluster").

This Appendix establishes procedures, terms and conditions for an optional Provisional Interconnection Service process available to eligible Interconnection Customers requesting interconnection and parallel operation with Duke Energy Carolinas, LLC ("DEC") or Duke Energy Progress, LLC ("DEP" and together with DEC, "Duke Energy" or the "Utility") through the Duke Energy Definitive Interconnection System Impact Study ("DISIS") cluster that opened January 1, 2022 (the "2022 DISIS Cluster").

Interconnection Customer may request Provisional Interconnection Service on a "firstcome, first-served" serial basis pursuant to the process set forth in this Appendix.

Provisional Interconnection Service is provided prior to the completion of all assigned Interconnection Facilities and System Upgrades required under the Interconnection Agreement ("Provisional Service Period") and is subject to the requirements and limitations prescribed in this Appendix generally as well as any Additional Operating Requirements prescribed in Appendix 5 applicable to operations during the Provisional Service Period. Interconnection Customer understands and acknowledges that it has no right to Provisional Interconnection Service and that any Provisional Interconnection Service authorization granted under the process set out in this Appendix is at the option of the Utility, conditional on the Utility ensuring no Adverse Operating Effects or adverse impacts to reliable parallel operations and is expressly limited pursuant to the terms of this section.

### 1.1 Scope of Provisional Interconnection Service.

Provisional Interconnection Service is a temporary form of limited, non-firm interconnection service that allows a 2022 DISIS Interconnection Customer to interconnect its Generating Facility to the Utility's System to accommodate requested Provisional Interconnection Service (a) prior to the completion of the full interconnection process and (b) prior to the construction of all required Interconnection Facilities and/or System Upgrades for full interconnection service.

### 1.2 Process for Requesting Provisional Interconnection Service.

A 2022 DISIS Interconnection Customer may submit a written request to the Utility for Provisional Interconnection Service at any time after Interconnection Customer's receipt of a fully executed Facilities Study Agreement. Requesting Provisional Interconnection Service is not required and is optional, and will not alter the Interconnection Customer's queue position.

- 1.2.1 A request for Provisional Interconnection Service shall be in writing and shall include all of the following: (1) a non-refundable application fee of \$5,000, (2) the queue position of the Generating Facility (3) maximum gross output (nameplate), (4) maximum net output, (5) resource type, (6) location (county, city, state), (7) requested in-service date for Provisional Interconnection Service, (8) a completed Provisional Interconnection Service Request Form, and (9) a functioning generator model in a software format acceptable to the Utility in order to conduct a study if required.
- **1.2.2** Utility shall acknowledge receipt of the Provisional Interconnection Request Form within five (5) Business Days of receipt of the request.
- 1.2.3 A Provisional Interconnection Service Request will not be considered to be a valid request until all items in Section 1.2.1 have been received and deemed adequate by the Utility. If the request fails to meet the requirements set forth in Section 1.2.1, the Utility shall notify the Interconnection Customer within five (5) Business Days of receipt of the initial Provisional Interconnection Request of the reasons for such failure and that the Provisional Interconnection Request does not constitute a valid request. Interconnection Customer shall provide the Utility the additional requested information needed to constitute a valid request within ten (10) Business Days after receipt of such notice, which shall be the only applicable cure period for such failure. Failure by Interconnection Customer to provide additional requested information, if applicable. within the time frame set forth in this section shall result in the Provisional Interconnection Service request being deemed withdrawn.

## **1.3** Priority of Validated Provisional Interconnection Service Requests

To the extent the Utility receives multiple requests for Provisional Interconnection Service from multiple Interconnection Customers that cannot be simultaneously accommodated, available Provisional Interconnection Service will be given to the earliest Provisional Interconnection Service request that has been validated.

## 1.4 Provisional Interconnection Service Study.

**1.4.1 Timing**. The Utility shall conduct a Provisional Interconnection Service Study after Interconnection Customer has executed the Interconnection Facilities Study Agreement associated with Interconnection Customer's Interconnection Request submitted in the Cluster Study Process.

- **1.4.2 Scope.** The Utility shall base such study upon available studies or additional studies as necessary to determine whether stability, short circuit, thermal, and/or voltage issues would arise if Interconnection Customer interconnects at the request level of Provisional Interconnection Service without (a) modifications to the Generating Facility or (b) construction of all required Interconnection Facilities or System Upgrades for full interconnection service.
- **1.4.3 Model.** The model for the Provisional Interconnection Service study will contain the following types of interconnection service and transmission service that have a planned in-service date that coincides with the term of service for the requested Provisional Interconnection Service: (1) Generating Facilities that have requested firm service, (2) firm point-to-point transmission service requests and network transmission service requests that have been accepted, (3) previously validated requests for Provisional Interconnection Service that are active and not terminated or withdrawn, and (4) unbuilt Interconnection Facilities and System Upgrades upon which the Interconnection Request's costs, timing, and study findings are dependent ("Contingent Facilities").
- **1.4.4 Study Agreement.** If the Utility determines that a new study is required to be performed under Section 1.4.2, then the Utility shall tender a Provisional Interconnection Service Study Agreement to Interconnection Customer. If the Utility determines that available studies may be used and no new study is required to be performed under Section 1.4.2, then no Provisional Interconnection Service Study Agreement is required, no study deposit under Section 1.4.5 is required, and no study under Section 1.4.6 is required.
- **1.4.5 Execution and Deposit**. Within thirty (30) Calendar Days after receipt of the Provisional Interconnection Service Study Agreement, Interconnection Customer shall execute the Provisional Interconnection Service Study Agreement and return to the Utility, along with a \$20,000 study deposit.
- **1.4.6 Study.** After receipt of the fully executed Provisional Service Study Agreement and required deposit, the Utility will perform the Provisional Interconnection Service Study within sixty (60) Calendar Days of receipt of Interconnection Customer's fully executed Provisional Interconnection Service Study Agreement and deposit. The Utility may base its study on available studies if such studies can accurately represent the model conditions described in Section 1.4.3. If the available studies cannot accurately represent the model conditions as stated above, then Utility will perform a new study to

identify the facilities that are required for Provisional Interconnection Service.

- **1.4.7 Study Report.** The Utility will issue a study report to Interconnection Customer that is based upon either available studies or a new study as applicable. The study report shall identify (1) the maximum permissible output of the Generating Facility that can be produced provisionally on a MW basis for each month of each year of the requested term of Provisional Interconnection Service and (2) any System Upgrades to be constructed at the Point of Interconnection necessary to accommodate the requested Provisional Interconnection Service which may include, but are not limited to, the following: (a) bus work at an existing substation, (b) breakers, (c) switches, (d) minimal line work, (e) capacitors and reactors, (f) metering equipment, (g) communication equipment, (h) system protection equipment, and (i) new single breaker interconnection station.
- **1.4.8 Customer Meeting.** Within ten (10) Business Days of delivering the study results, the Utility will schedule a Customer meeting to discuss the results of the studies with the Interconnection Customer.

## **1.5** Commencement of Provisional Interconnection Service.

- **1.5.1** Within thirty (30) Calendar Days of the Customer meeting in Section 1.4.7, the Utility will prepare an Interconnection Agreement including this Appendix 7 and additional updates to other appendices as appropriate and deliver it to the Interconnection Customer.
- **1.5.2** Appendix 5 of this Agreement will outline the Provisional Interconnection Service specifications derived from the Provisional Interconnection Service Study report. Appendix 4 of this Agreement shall identify the date upon which Interconnection Customer will commence Provisional Interconnection Service. To the extent that it is known at the time, Appendix 4 shall also identify the date upon which full Interconnection Service will commence and supplant Provisional Interconnection Service.
- **1.5.3** If required by the Utility, Interconnection Customer shall install equipment or protective devices that would disconnect the Generating Facility in the event that the output of the Generating Facility exceeds the maximum permissible output identified by the Utility pursuant to Sections 1.5.1 and 1.5.2. Such equipment shall be specified in Appendix 2 to this Interconnection Agreement.

- **1.5.4** A sixty (60) Calendar Day negotiation period will occur to finalize timelines and financial aspects. In the event that Interconnection Customer executes an Interconnection Agreement including this Appendix 7 and agreed upon timelines and financial aspects in Appendix 2, Appendix 4, and Appendix 6, the Utility shall execute this Agreement and such agreement shall be effective as of the date of execution. In the event that negotiations fail to result in an agreement including this Appendix 7, Interconnection Customer requested Provisional Interconnection Service will not be granted.
- **1.5.5** The Interconnection Customer agrees to assume all risks and liability associated with taking Provisional Interconnection Service

## 1.6 Revisions to Provisional Interconnection Service During Provisional Service Period

- **1.6.1** During the Provisional Service Period, the Utility shall restudy the maximum permissible output of the Generating Facility at the Interconnection Customer's expense.
- **1.6.2** Within sixty (60) Calendar Days of the notification to Interconnection Customers in subsequent Cluster Study Processes that no further restudies will be required, the Utility shall perform such Provisional Interconnection Service restudies and shall provide the results of such restudy in writing to the Interconnection Customer.
- **1.6.3** If the outcome of a Provisional Interconnection Service restudy results in an increase or decrease to the maximum permissible output of the Generating Facility for all or part of the Provisional Service Period, then the Utility shall revise such output in this Agreement and shall tender the amended Agreement to Interconnection Customer for execution. Interconnection Customer shall have thirty (30) Calendar Days to execute the amended Agreement. Failure by Interconnection Customer to execute the amendment within 30 Calendar Days shall result in deemed termination of Provisional Interconnection Service.

### 1.7 Termination of Provisional Interconnection Service

**1.7.1** If the outcome of any of the periodic studies described in Section 1.6 results in a decrease to the maximum permissible output of the Generating Facility resulting in 0 MW of Provisional Interconnection Service for the remaining duration of the term of the Provisional Service Period, then the Parties shall agree to terminate Provisional Interconnection Service pursuant to this Appendix 7.

- **1.7.2** Upon completion of the required Interconnection Facilities and System Upgrades required for full Interconnection Service identified in this Agreement, the Interconnection Customer will be upgraded to its full requested level of Interconnection Service identified in the Cluster Study Process and therefore the Parties shall agree to terminate Provisional Interconnection Service pursuant to SCGIP IA Appendix 7.
- **1.7.3** Interconnection Customer assumes all risk and liabilities with respect to changes to the maximum permissible output and Interconnection Facilities and/or System Upgrade cost.

### 1.8 Provisional Interconnection Service Interim Final Accounting

In addition to and consistent with the final accounting report process detailed Article 6.1 of this Agreement, the Utility shall complete an interim final accounting and provide the Interconnection Customer an interim final accounting report within 60 Business Days of the Interconnection Facilities Delivery Date. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Utility shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Utility within 20 Business Days. Failure to make payment to the Utility under this section may result in the termination of Provisional Interconnection Service. If necessary and appropriate as a result of the interim final accounting report, the Utility may also adjust the monthly charges set forth in Appendix 2. For the avoidance of doubt, Interconnection Customer shall also be responsible for the final true up of costs under the Section 6.1 Final Accounting Process once all System Upgrades are completed.

Agreed to for	Interconnection Customer
Name:	
Print Name:	
Date:	

Agreed to for	Jtility	
Name:	-	
Print Name:		
Date:		

## **Provisional Interconnection Service Study Agreement**

 THIS AGREEMENT is made and entered into this \_\_\_\_\_\_ day of \_\_\_\_\_\_,

 \_\_\_\_\_\_ by and between \_\_\_\_\_\_, a \_\_\_\_\_ Company organized and existing under the laws of the State of \_\_\_\_\_\_, ("Interconnection Customer"), and \_\_\_\_\_\_, a \_\_\_\_\_\_, a \_\_\_\_\_\_ existing under the laws of the State of \_\_\_\_\_\_, ("Duke Energy"). Interconnection Customer and Duke Energy each may be referred to as a "Party," or collectively as the "Parties."

### RECITALS

**WHEREAS,** Interconnection Customer is developing a Generating Facility under a valid Interconnection Request dated\_\_\_\_\_;

WHEREAS, Interconnection Customer participated in Duke Energy's Definitive Interconnection System Impact Study ("DISIS") cluster process that opened January 1, 2022 (the "2022 DISIS Cluster"); and

**WHEREAS,** Interconnection Customer is requesting the Duke Energy to study the impacts of Provisional Interconnection Service consistent with Appendix 7 in Interconnection Customer's fully executed Interconnection Agreement;

**NOW, THEREFORE,** in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- **1.0** When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Commission-approved North Carolina Interconnection Procedures ("NCIP").
- **2.0** Interconnection Customer elects and Duke Energy shall cause a Provisional Interconnection Service Study to be performed consistent with Appendix 7 in Interconnection Customer's fully executed Interconnection Agreement.
- **3.0** Where Duke Energy has determined that a new study is required to be performed under Section 1.4.2 of Appendix 7 in Interconnection Customer's fully executed Interconnection Agreement, Interconnection Customer shall execute this Provisional Interconnection Service Study Agreement and return to Duke Energy, along with a \$20,000 study deposit.
- **4.0** The scope of the Provisional Interconnection Service Study is described in Section 1.4.2 of Appendix 7 in Interconnection Customer's fully executed Interconnection Agreement.
- **5.0** The Provisional Interconnection Service Study shall be based on the assumptions provided by the Provisional Interconnection Service Customer per Section 1.2.1 of Appendix 7 in Interconnection Customer's fully executed Interconnection Agreement.
- **6.0** Duke Energy will perform the Provisional Interconnection Service Study within sixty (60) Calendar Days as described in Section 1.4.6 of Appendix 7 in Interconnection Customer's fully executed Interconnection Agreement.

- **7.0** Upon completion of the Provisional Interconnection Service Study, Duke Energy will issue a study report to Interconnection Customer pursuant to Section 1.4.7 of Appendix 7 in Interconnection Customer's fully executed Interconnection Agreement.
- **8.0** The Provisional Interconnection Service Study report shall provide the following information:
  - identification of any circuit breaker short circuit capability limits exceeded as a result of the maximum net output requested for Provisional Interconnection Service;
  - identification of any thermal overload or voltage limit violations resulting from the maximum net output requested for Provisional Interconnection Service;
  - identification of any instability or inadequately damped response to system disturbances resulting from the maximum net output requested for Provisional Interconnection Service;
  - the maximum permissible output of the Generating Facility that can be produced provisionally on a MW basis for each month of each year of the requested term of Provisional Interconnection Service; and
  - description and non-binding, good faith estimated cost of any Duke Energy's Interconnection Facilities and System Upgrades necessary to accommodate the requested Provisional Interconnection Service which may include, but are not limited to, the following: (a) bus work at an existing substation, (b) breakers, (c) switches, (d) minimal line work, (e) capacitors and reactors, (f) metering equipment, (g) communication equipment, (h) system protection equipment, and (i) new single breaker interconnection station.
- **9.0** After issuance of the Provisional Interconnection Service Study report to Interconnection Customer, Duke Energy shall charge and Interconnection Customer shall pay the actual costs of the Provisional Interconnection Service Study. Any difference between the initial payment and the actual cost of the study shall be paid by or refunded to Interconnection Customer, as appropriate.
- **10.0** Miscellaneous. The Provisional Interconnection Service Study shall include standard miscellaneous terms including, but not limited to, indemnities, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, and that are consistent with regional practices, Applicable Laws and Regulations, and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the NCIP and the NCIA.

**IN WITNESS WHEREOF,** the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**Duke Energy** 

By:\_\_\_\_\_

**Interconnection Customer** 

By:\_\_\_\_\_

Date:	

### **CERTIFICATE OF SERVICE**

I hereby certify that copies of the foregoing <u>Petition for Authorization of</u> <u>Provisional Interconnection Service Option and Limited Waiver of North Carolina</u> <u>Interconnection Procedures for 2022 DISIS Interconnection Customers</u>, as filed in Docket No. E-100, Sub 101, were served electronically or via U.S. mail, first-class, postage prepaid, upon all parties of record.

This, the 28th day of June, 2024.

### /s/ E. Brett Breitschwerdt

E. Brett Breitschwerdt McGuireWoods LLP 501 Fayetteville Street, Suite 500 PO Box 27507 (27611) Raleigh, North Carolina 27601 Telephone: (919) 755-6563 bbreitschwerdt@mcguirewoods.com

Attorney for Duke Energy Carolinas, LLC and Duke Energy Progress, LLC