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March 25, 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 Progress, LLC's Interconnection Agreement for Hot Springs Microgrid Project
Docket No. E-2, Sub 1185**

Dear Ms. Campbell:

As requested by Commission Staff, I enclose Duke Energy Progress, LLC's ("DEP") Interconnection Agreement for the Hot Springs Microgrid Solar and Battery Storage Facility ("Interconnection Agreement") for filing in connection with the referenced matter.

Portions of the Interconnection Agreement are being filed under seal, and DEP respectfully requests that the marked data be treated confidentially pursuant to N.C. Gen. Stat. § 132-1.2. The confidential information consists of items unique to the Hot Springs Microgrid Solar and Battery Storage Facility, which are proprietary and commercially sensitive, personal contact information for company personnel, and also the Company's cost information, disclosure of which would allow competitors, vendors and other market participants to gain an undue advantage, which may ultimately result in harm to customers.

Thank you for your attention to this matter. If you have any questions, please let me know.

Sincerely,

Lawrence B. Somers

Enclosure

cc: Parties of Record
Dwight Allen, Esquire

OFFICIAL COPY

Mar 26 2021

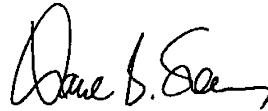
CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Progress, LLC’s Interconnection Agreement for the Hot Springs Microgrid Facility, in Docket No. E-2, Sub 1185, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid to the following parties of record:

Dianna Downey
Public Staff
North Carolina Utilities
Commission
4326 Mail Service Center
Raleigh, NC 27699-4300
dianna.downey@psncuc.nc.gov

Peter Ledford
Benjamin W. Smith
NC Sustainable Energy Assoc.
4800 Six Forks Road, Suite 300
Raleigh, NC 27609
peter@energync.org
ben@energync.org

This is the 25th day March, 2021.



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NORTH CAROLINA
INTERCONNECTION AGREEMENT
For State-Jurisdictional Generator Interconnections
Effective June 14, 2019
Docket No. E-100, Sub 101

Between

Duke Energy Progress, LLC

And

Duke Energy Progress, LLC

“Duke Energy Progress - Hot Springs Microgrid”

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This Interconnection Agreement ("Agreement") is made and entered into this the 15th Day of March, 2021, by Duke Energy Progress, LLC ("Utility") and Duke Energy Progress, LLC ("Interconnection Customer") each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties."

Utility Information

Utility: Duke Energy Progress, LLC

Attention: Distribution Interconnected Generation Office
c/o Customer Owned Generation – Mail Code ST26A

Address: P.O. Box 1010

City: Charlotte State: NC Zip: 28202

Phone: 866-233-2290 Fax: N/A

Interconnection Customer Information [BEGIN CONFIDENTIAL]

Name: Duke Energy Progress, LLC

Project Name: Duke Energy Progress - Hot Springs Microgrid

Attention: [REDACTED]

E911 Address: 172 Andrews Ave S

City: Hot Springs State: NC Zip: 28743

Phone: [REDACTED]

County: Madison

[END CONFIDENTIAL]

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

Article 1. Scope and Limitations of Agreement

1.1 Applicability

This Agreement shall be used for all Interconnection Requests submitted under the North Carolina Interconnection Procedures except for those submitted under the 20 kW Inverter Process in Section 2 of the Interconnection Procedures.

1.2 Purpose

This Agreement governs the terms and conditions under which the Interconnection Customer's Generating Facility will interconnect with, and operate in parallel with, the Utility's System.

1.3 No Agreement to Purchase or Deliver Power or RECs

This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power or Renewable Energy Certificates (RECs). The purchase or delivery of power, RECs that might result from the operation of the Generating Facility, and other services that the Interconnection Customer may require will be covered under separate agreements, if any. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity with the applicable Utility.

1.4 Limitations

Nothing in this Agreement is intended to affect any other agreement between the Utility and the Interconnection Customer.

1.5 Responsibilities of the Parties

1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.

1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Generating Facility and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, and in accordance with this Agreement, and with Good Utility Practice.

1.5.3 The Utility shall construct, operate, and maintain its System and Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.

- 1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriters' Laboratories, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Generating Facility so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the System or equipment of the Utility and any Affected Systems.
- 1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Appendices to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of change of ownership. The Utility and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Utility's System, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Appendices to this Agreement.
- 1.5.6 The Utility shall coordinate with all Affected Systems to support the interconnection.
- 1.5.7 The Customer shall not operate the Generating Facility in such a way that the Generating Facility would exceed the Maximum Generating Capacity.

1.6 Parallel Operation Obligations

Once the Generating Facility has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Generating Facility in the applicable control area, including, but not limited to: 1) any rules and procedures concerning the operation of generation set forth in Commission-approved tariffs or by the applicable system operator(s) for the Utility's System and; 2) the Operating Requirements set forth in Appendix 5 of this Agreement.

1.7 Metering

The Interconnection Customer shall be responsible for the Utility's reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Appendices 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

1.8 Reactive Power

1.8.1 The Interconnection Customer shall design its Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Utility has established different requirements that apply to all similarly situated generators in the control area on a comparable basis. The requirements of this paragraph shall not apply to wind generators.

1.8.2 The Utility is required to pay the Interconnection Customer for reactive power that the Interconnection Customer provides or absorbs from the Generating Facility when the Utility requests the Interconnection Customer to operate its Generating Facility outside the range specified in Article 1.8.1 or outside the range established by the Utility that applies to all similarly situated generators in the control area. In addition, if the Utility pays its own or affiliated generators for reactive power service within the specified range, it must also pay the Interconnection Customer.

1.8.3 Payments shall be in accordance with the Utility's applicable rate schedule then in effect unless the provision of such service(s) is subject to a regional transmission organization or independent system operator FERC-approved rate schedule. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb reactive power under this Agreement, the Parties agree to expeditiously file such rate schedule and agree to support any request for waiver of any prior notice requirement in order to compensate the Interconnection Customer from the time service commenced.

1.9 Capitalized Terms

Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 of the North Carolina Interconnection Procedures or the body of this Agreement.

Article 2. Inspection, Testing, Authorization, and Right of Access

2.1 Equipment Testing and Inspection

- 2.1.1 The Interconnection Customer shall test and inspect its Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the Utility of such activities no fewer than ten (10) Business Days (or as may be agreed to by the Parties) prior to such testing and inspection. Testing and inspection shall occur on a Business Day, unless otherwise agreed to by the Parties. The Utility may, at its own expense, send qualified personnel to the Generating Facility site to inspect the interconnection and observe the testing. The Interconnection Customer shall provide the Utility a written test report when such testing and inspection is completed.
- 2.1.2 The Utility shall provide the Interconnection Customer written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Utility of the safety, durability, suitability, or reliability of the Generating Facility or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the Generating Facility.
- 2.1.3 In addition to the Utility's observation of the Interconnection Customer's testing and inspection of its Generating Facility and Interconnection Facilities pursuant to this Section, the Utility may also require inspection and testing of Interconnection Facilities that can impact the integrity or safety of the Utility's System or otherwise cause adverse operating effects, as described in Section 3.4.4. Such inspection and testing activities will be performed by the Utility or a third-party independent contractor approved by the Utility and at a time mutually agreed to by the Interconnection Customer and will be performed at the Interconnection Customer's expense. The scope of required inspection and testing will be consistent across similar types of generating facilities.

2.2 Authorization Required Prior to Parallel Operation

- 2.2.1 The Utility shall use Reasonable Efforts to list applicable parallel operation requirements in Appendix 5 of this Agreement. Additionally, the Utility shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Utility shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.
- 2.2.2 The Interconnection Customer shall not operate its Generating Facility in parallel with the Utility's System without prior written authorization of

the Utility. The Utility will provide such authorization once the Utility receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

2.3 Right of Access

- 2.3.1 Upon reasonable notice, the Utility may send a qualified person to the premises of the Interconnection Customer at or before the time the Generating Facility first produces energy to inspect the interconnection and those Interconnection Customer facilities which can impact the integrity or safety of the Utility's System or otherwise cause adverse operating effects, as described in Section 3.4.4, and observe the commissioning of the Generating Facility (including any required testing), startup, and operation for a period of up to three (3) Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Utility at least five (5) Business Days prior to conducting any on-site verification testing of the Generating Facility.
- 2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Utility shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.
- 2.3.3 Each Party shall be responsible for its own costs associated with following this Article, with the exception of Utility-required inspection and testing described in Section 2.1.3, the costs for which shall be the responsibility of the Interconnection Customer.

Article 3. Effective Date, Term, Termination, and Disconnection

3.1 Effective Date

This Agreement shall become effective upon execution by the Parties.

3.2 Term of Agreement

This Agreement shall become effective on the Effective Date and shall remain in effect for a period of ten (10) years from the Effective Date or such other longer period as the Interconnection Customer may request and shall be automatically renewed for each successive one-year period thereafter, unless terminated earlier in accordance with Article 3.3 of this Agreement.

3.3 Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination.

- 3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the Utility 20 Business Days written notice and physically and permanently disconnecting the Generating Facility from the Utility's System.
- 3.3.2 The Utility may terminate this Agreement upon the Interconnection Customer's failure to timely make the payment(s) required by Article 6.1.1 pursuant to the milestones specified in Appendix 4, or to comply with the requirements of Article 7.1.2 or Article 7.1.3.
- 3.3.3 Either Party may terminate this Agreement after Default pursuant to Article 7.6.
- 3.3.4 Upon termination of this Agreement, the Generating Facility will be disconnected from the Utility's System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this Agreement or such non-terminating Party otherwise is responsible for these costs under this Agreement.
- 3.3.5 The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination, including any remaining term requirements for payment of Charges that are billed under a monthly payment option as prescribed in Article 6.
- 3.3.6 The provisions of this article shall survive termination or expiration of this Agreement.

3.4 Temporary Disconnection

Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.

3.4.1 Emergency Conditions

"Emergency Condition" shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the Utility, is imminently likely (as determined in a non-discriminatory manner) to 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; or (3) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Generating Facility or the Interconnection Customer's Interconnection Facilities.

Under Emergency Conditions, the Utility may immediately suspend interconnection service and temporarily disconnect the Generating Facility. The Utility shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Generating Facility. The Interconnection Customer shall notify the Utility promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Utility's System or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

3.4.2 Routine Maintenance, Construction, and Repair

The Utility may interrupt interconnection service or curtail the output of the Generating Facility and temporarily disconnect the Generating Facility from the Utility's System when necessary for routine maintenance, construction, and repairs on the Utility's System. The Utility shall provide the Interconnection Customer with two (2) Business Days' notice prior to such interruption. The Utility shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

3.4.3 Forced Outages

During any forced outage, the Utility may suspend interconnection service to effect immediate repairs on the Utility's System. The Utility shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Utility shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

3.4.4 Adverse Operating Effects

The Utility shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Generating Facility may cause disruption or deterioration of service to other customers served from the same electric System, or if operating the Generating Facility could cause damage to the Utility's System or

Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Utility may disconnect the Generating Facility. The Utility shall provide the Interconnection Customer with five (5) Business Day notice of such disconnection, unless the provisions of Article 3.4.1 apply.

3.4.5 Modification of the Generating Facility

The Interconnection Customer must receive written authorization from the Utility before making a Material Modification or any other change to the Generating Facility that may have a material impact on the safety or reliability of the Utility's System. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Interconnection Customer makes such modification without the Utility's prior written authorization, the latter shall have the right to temporarily disconnect the Generating Facility.

3.4.6 Reconnection

The Parties shall cooperate with each other to restore the Generating Facility, Interconnection Facilities, and the Utility's System to their normal operating state as soon as reasonably practicable following a temporary or emergency disconnection.

Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

4.1 Interconnection Facilities

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Appendix 2 of this Agreement. The Utility shall provide a best estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Utility.

4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Utility's Interconnection Facilities.

4.2 Distribution Upgrades

The Utility shall design, procure, construct, install, and own the Distribution Upgrades described in Appendix 6 of this Agreement. If the Utility and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, on-going operations, maintenance, repair, and replacement, shall be directly assigned to the Interconnection Customer.

Article 5. Cost Responsibility for Network Upgrades

5.1 Applicability

No portion of this Article 5 shall apply unless the interconnection of the Generating Facility requires Network Upgrades.

5.2 Network Upgrades

The Utility shall design, procure, construct, install, and own the Network Upgrades described in Appendix 6 of this Agreement. If the Utility and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Utility elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, on-going operations, maintenance, repair, and replacement shall be borne by the Interconnection Customer.

Article 6. Billing, Payment, Milestones, and Financial Security

6.1 Billing and Payment Procedures and Final Accounting

6.1.1 The Interconnection Customer shall pay 100% of required Interconnection Facilities and any other charges as required in Appendix 2 pursuant to the milestones specified in Appendix 4.

The Interconnection Customer shall pay 100% of required Upgrades and any other charges as required in Appendix 6 pursuant to the milestones specified in Appendix 4.

Upon receipt of 100% of the foregoing pre-payment charges for Upgrades, the payment is not refundable due to cancellation of the Interconnection Request for any reason. However, if an Interconnection Customer terminates its Interconnection Agreement and cancels its facility, it shall be entitled to a refund of any unspent amounts that had been collected by the Utility for the Interconnection Customer's Interconnection Facilities.

- 6.1.2 If implemented by the Utility or requested by the Interconnection Customer in writing within 15 Business Days of the Interconnection Facilities Delivery Date, the Utility shall provide the Interconnection Customer a final accounting report within 120 Business Days addressing any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection Customer's previous aggregate payments to the Utility for such facilities or Upgrades. 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. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Utility shall refund to the Interconnection Customer an amount equal to the difference within 20 Business Days of the final accounting report. If necessary and appropriate as a result of the final accounting, the Utility may also adjust the monthly charges set forth in Appendix 2 of the Interconnection Agreement.
- 6.1.3 The Utility shall also bill the Interconnection Customer for the costs associated with operating, maintaining, repairing and replacing the Utility's System Upgrades, as set forth in Appendix 6 of this Agreement. The Utility shall bill the Interconnection Customer for the costs of providing the Utility's Interconnection Facilities including the costs for on-going operations, maintenance, repair and replacement of the Utility's Interconnection Facilities under a Utility rate schedule, tariff, rider or service regulation providing for extra facilities or additional facilities charges, as set forth in Appendix 2 of this Agreement, such monthly charges to continue throughout the entire life of the interconnection.

6.2 Milestones

The Parties shall agree on milestones for which each Party is responsible and list them in Appendix 4 of this Agreement. A Party's obligations under this provision may be extended by agreement, except for timing for Payment or Financial Security-related requirements set forth in the milestones, which shall adhere to Section 5.2.4 of the Standards. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) request appropriate amendments to Appendix 4. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless (1) it will suffer significant uncompensated economic or operational harm from the delay, (2) the delay will materially affect the schedule of another Interconnection Customer with subordinate Queue Position, (3) attainment of the same milestone has previously

been delayed, or (4) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

6.3 Financial Security Arrangements

Pursuant to the Interconnection Agreement Milestones Appendix 4, the Interconnection Customer shall provide the Utility a letter of credit or other financial security arrangement that is reasonably acceptable to the Utility and is consistent with the Uniform Commercial Code of North Carolina. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Utility's Interconnection Facilities and shall be reduced on a dollar-for-dollar basis for payments made to the Utility under this Agreement during its term. In addition:

- 6.3.1 The guarantee must be made by an entity that meets the creditworthiness requirements of the Utility, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.
- 6.3.2 The letter of credit must be issued by a financial institution or insurer reasonably acceptable to the Utility and must specify a reasonable expiration date.
- 6.3.3 The Utility may waive the security requirements if its credit policies show that the financial risks involved are de minimus, or if the Utility's policies allow the acceptance of an alternative showing of credit-worthiness from the Interconnection Customer.

Article 7. Assignment, Liability, Indemnity, Force Majeure, Consequential Damages, and Default

7.1 Assignment

- 7.1.1 The Interconnection Customer shall notify the Utility of the pending sale of an existing Generating Facility in writing. The Interconnection Customer shall provide the Utility with information regarding whether the sale is a change of ownership of the Generating Facility to a new legal entity, or a change of control of the existing legal entity.
- 7.1.2 The Interconnection Customer shall promptly notify the Utility of the final date of sale and transfer date of ownership in writing. The purchaser of the Generating Facility shall confirm to the Utility the final date of sale and transfer date of ownership in writing
- 7.1.3 This Agreement shall not survive the transfer of ownership of the Generating Facility to a new legal entity owner. The new owner must

complete a new Interconnection Request and submit it to the Utility within 20 Business Days of the transfer of ownership or the Utility's Interconnection Facilities shall be removed or disabled and the Generating Facility disconnected from the Utility's System. The Utility shall not study or inspect the Generating Facility unless the new owner's Interconnection Request indicates that a Material Modification has occurred or is proposed.

7.1.4 This Agreement shall survive a change of control of the Generating Facility' legal entity owner, where only the contact information in the Interconnection Agreement must be modified. The new owner must complete a new Interconnection Request and submit it to the Utility within 20 Business Days of the change of control and provide the new contact information. The Utility shall not study or inspect the Generating Facility unless the new owner's Interconnection Request indicates that a Material Modification has occurred or is proposed.

7.1.5 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Utility, for collateral security purposes to aid in providing financing for the Generating Facility, provided that the Interconnection Customer will promptly notify the Utility of any such assignment. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof.

7.1.6 Any attempted assignment that violates this article is void and ineffective.

7.2 Limitation of Liability

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, incidental, consequential, or punitive damages of any kind, except as authorized by this Agreement.

7.3 Indemnity

7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in Article 7.2.

7.3.2 The Parties shall at all times indemnify, defend, and save the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to

property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inaction of its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

- 7.3.3 If an indemnified Party is entitled to indemnification under this Article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this Article, to assume the defense of such claim, such indemnified Party may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.
- 7.3.4 If an indemnifying Party is obligated to indemnify and hold any indemnified Party harmless under this Article, the amount owing to the indemnified Party shall be the amount of such indemnified Party's actual loss, net of any insurance or other recovery.
- 7.3.5 Promptly after receipt by an indemnified Party of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this Article may apply, the indemnified Party shall notify the indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Party.

7.4 Consequential Damages

Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

7.5 Force Majeure

- 7.5.1 As used in this article, a Force Majeure Event shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any

other cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing.

- 7.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party, either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

7.6 Default

- 7.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money or provision of Financial Security) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in Article 7.6.2, the defaulting Party shall have five (5) Business Days from receipt of the Default notice within which to cure such Default.
- 7.6.2 If a Default is not cured as provided in this Article, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

Article 8. Insurance

- 8.1 The Interconnection Customer shall obtain and retain, for as long as the Generating Facility is interconnected with the Utility's System, liability insurance which protects the Interconnection Customer from claims for bodily injury and/or property damage. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. This insurance

shall be primary for all purposes. The Interconnection Customer shall provide certificates evidencing this coverage as required by the Utility. Such insurance shall be obtained from an insurance provider authorized to do business in North Carolina. The Utility reserves the right to refuse to establish or continue the interconnection of the Generating Facility with the Utility's System, if such insurance is not in effect.

- 8.1.1 For an Interconnection Customer that is a residential customer of the Utility proposing to interconnect a Generating Facility no larger than 250 kW, the required coverage shall be a standard homeowner's insurance policy with liability coverage in the amount of at least \$100,000 per occurrence.
 - 8.1.2 For an Interconnection Customer that is a non-residential customer of the Utility proposing to interconnect a Generating Facility no larger than 250 kW, the required coverage shall be comprehensive general liability insurance with coverage in the amount of at least \$300,000 per occurrence.
 - 8.1.3 For an Interconnection Customer that is a non-residential customer of the Utility proposing to interconnect a Generating Facility greater than 250 kW, the required coverage shall be comprehensive general liability insurance with coverage in the amount of at least \$1,000,000 per occurrence.
 - 8.1.4 An Interconnection Customer of sufficient credit-worthiness may propose to provide this insurance via a self-insurance program if it has a self-insurance program established in accordance with commercially acceptable risk management practices, and such a proposal shall not be unreasonably rejected.
- 8.2 The Utility agrees to maintain general liability insurance or self-insurance consistent with the Utility's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Utility's liabilities undertaken pursuant to this Agreement.
- 8.3 The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

Article 9. Confidentiality

- 9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Customer shall

be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.

- 9.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.
- 9.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.
- 9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.
- 9.2.3 All information pertaining to a project will be provided to the new owner in the case of a change of control of the existing legal entity or a change of ownership to a new legal entity.
- 9.3 If information is requested by the Commission from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to the Commission within the time provided for in the request for information. In providing the information to the Commission, the Party may request that the information be treated as confidential and non-public in accordance with North Carolina law and that the information be withheld from public disclosure.

Article 10. Disputes

- 10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this Article.
- 10.2 In the event of a dispute, either Party shall provide the other Party with a written notice of dispute. Such notice shall describe in detail the nature of the dispute.
- 10.3 If the dispute has not been resolved within 20 Business Days after receipt of the notice, either Party may contact the Public Staff for assistance in informally resolving the dispute, or the Parties may mutually agree to continue negotiations for up to an additional 20 Business Days. In the alternative, the Parties may, upon

mutual agreement, seek the assistance of a dispute resolution service to resolve the dispute within 20 Business Days, with the opportunity to extend this timeline upon mutual agreement. If the Parties are unable to informally resolve the dispute, either Party may then file a formal complaint with the Commission.

10.4 Each Party agrees to conduct all negotiations in good faith.

Article 11. Taxes

11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with North Carolina and federal policy and revenue requirements.

11.2 Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Agreement is intended to adversely affect the Utility's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

Article 12. Miscellaneous

12.1 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the State of North Carolina, without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

12.2 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties, or under Article 12.12 of this Agreement.

12.3 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

12.4 Waiver

12.4.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

12.4.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, or duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Utility. Any waiver of this Agreement shall, if requested, be provided in writing.

12.5 Entire Agreement

This Agreement, including all Appendices, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

12.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

12.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

12.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

12.9 Security Arrangements

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational

security. All Utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.

12.10 Environmental Releases

Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any Governmental Authorities addressing such events.

12.11 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

12.11.2 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Utility be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

12.11.3 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

12.12 Reservation of Rights

The Utility shall have the right to make a unilateral filing with the Commission to modify this Agreement with respect to any rates, terms and conditions, charges, or classifications of service, and the Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this Agreement; provided that each Party shall have the right to protest any such filing by the other Party and

to participate fully in any proceeding before the Commission in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties except to the extent that the Parties otherwise agree as provided herein.

Article 13. Notices

13.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement (Notice) shall be deemed properly given if delivered in person, delivered by recognized national courier service, sent by first class mail, postage prepaid, or sent electronically to the person specified below:

If to the Interconnection Customer: **[BEGIN CONFIDENTIAL]**

Interconnection Customer: Duke Energy Progress, LLC

Attention: [REDACTED]

Address: 400 S. Tryon Street

City: Charlotte State: NC Zip: 28202

E-Mail Address: [REDACTED]

Phone: [REDACTED]

[END CONFIDENTIAL]

If to the Utility:

Utility: Duke Energy Progress, LLC

Attention: Wholesale Renewable Manager c/o DERContracts – Mail Code ST26A

Address: P.O. Box 1010

City: Charlotte State: NC Zip: 28202

E-Mail Address: DERContracts@duke-energy.com

Phone: 866-233-2290 Fax: 980-373-3238

13.2 Billing and Payment

Billings and payments shall be sent to the addresses set out below: If to the Interconnection Customer:

[BEGIN CONFIDENTIAL]

Interconnection Customer: Duke Energy Progress, LLC

Attention: [REDACTED]

Address: 400 S. Tryon Street

City: Charlotte State: NC Zip: 28202

E-Mail Address: [REDACTED]

Phone: [REDACTED]

[END CONFIDENTIAL]

If to the Utility:

Utility: Duke Energy Progress, LLC

Attention: Central Remittance

Address: P.O. Box 602874

City: Charlotte State: NC Zip: 28260-2874

13.3 Alternative Forms of Notice

Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer: **[BEGIN CONFIDENTIAL]**

Interconnection Customer: Duke Energy Progress, LLC

Attention: [REDACTED]

Address: 400 S. Tryon Street

City: Charlotte State: NC Zip: 28202

E-Mail Address: [REDACTED]

Phone: [REDACTED]

[END CONFIDENTIAL]

If to the Utility:

Utility: Duke Energy Progress, LLC

Attention: Wholesale Renewable Manager c/o DER Contracts – Mail Code ST26A

Address: P.O. Box 1010

City: Charlotte State: NC Zip: 28202

Phone: 866-233-2290 Fax: 980-373-3238

E-Mail Address: DERContracts@duke-energy.com

13.4 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative: **[BEGIN CONFIDENTIAL]**

Interconnection Customer: Duke Energy Progress, LLC

Attention: [REDACTED]

Address: 400 S. Tryon Street

City: Charlotte State: NC Zip: 28202

E-Mail Address: [REDACTED]

Phone: [REDACTED]

[END CONFIDENTIAL]

Utility's Operating Representative:

Utility: Duke Energy Progress, LLC

Attention: Distribution Interconnected Generation Office
c/o Customer Owned Generation – Mail Code ST26A

Address: P.O. Box 1010

City: Charlotte State: NC Zip: 28202

Phone: 866-233-2290 Fax: N/A

E-Mail Address: DERContracts@duke-energy.com

13.5 Changes to the Notice Information

Either Party may change this information by giving five Business Days written notice prior to the effective date of the change.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For the Duke Energy Progress, LLC

Name: Jeffrey W. Riggins
Jeffrey W. Riggins (Mar 15, 2021 15:40 EDT)

Print Name: Jeffrey W. Riggins

Title: Director, Standard PPAs and Interconnections

Date: Mar 15, 2021

For the Interconnection Customer

Name: Zak Kuznar
Zak Kuznar (Mar 12, 2021 15:41 EST)

Print Name: Zak Kuznar

Title: Managing Director

Date: Mar 12, 2021

Glossary of Terms

20 kW Inverter Process - The procedure for evaluating an Interconnection Request for a certified inverter-based Generating Facility no larger than 20 kW that uses the Section 3 screens. The application process uses an all -in-one document that includes a simplified Interconnection Request Application Form, simplified procedures, and a brief set of Terms and Conditions. (See Attachment 6.)

Affected System - A Utility other than the interconnecting Utility's System that may be affected by the proposed interconnection. The owner of an Affected System might be a Party to the Interconnection Agreement or other study agreements needed to interconnect the Generating Facility.

Applicable Laws and Regulations - All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

Auxiliary Load - The term "Auxiliary Load" shall mean power used to operate auxiliary equipment in the facility necessary for power generation (such as pumps, blowers, fuel preparation machinery, exciters, etc.)

Business Days - Monday through Friday, excluding State Holidays.

Calendar Days - Sunday through Saturday, including all holidays.

Commission - The North Carolina Utilities Commission.

Competitive Resource Solicitation - A competitive generation procurement process through which a Utility solicits, or Utilities jointly solicit, new Generating Facilities offering to deliver energy to the Utility for the purpose of meeting the requirements of applicable laws or regulations, including but not limited to G.S. § 62-110.8.

Default - The failure of a breaching Party to cure its breach under the Interconnection Agreement.

Detailed Estimated Interconnection Facilities Charge - The estimated charge for Interconnection Facilities that is based on field visits and/or detailed engineering cost calculations and is presented in the Facilities Study Report and Interconnection Agreement. This charge is not final.

Detailed Estimated Upgrade Charge - The estimated charge for Upgrades that is based on field visits and/or detailed engineering cost calculations and is presented in the Facilities Study Report and Interconnection Agreement.

Distribution System - The Utility's facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over

longer distances. The voltage levels at which Distribution Systems operate differ among areas.

Distribution Upgrades - The additions, modifications, and upgrades to the Utility's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the service necessary to allow the Generating Facility to operate in parallel with the Utility and to inject electricity onto the Utility's System. Distribution Upgrades do not include Interconnection Facilities.

Electric Generator Lessor - The owner of a solar energy facility who leases the facility to a customer generator lessee, including any agents who act on behalf of the electric generator lessor.

Fast Track Process - The procedure for evaluating an Interconnection Request for a certified Generating Facility no larger than 2 MW that meets the eligibility requirements of Section 3.1.

Financial Security - A letter of credit or other financial arrangement that is reasonably acceptable to the Utility and is consistent with the Uniform Commercial Code of North Carolina that is sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Utility's Interconnection Facilities. Where appropriate, the Utility may deem Financial Security to exist where its credit policies show that the financial risks involved are de minimus, or where the Utility's policies allow the acceptance of an alternative showing of credit-worthiness from the Interconnection Customer.

Generating Facility - The Interconnection Customer's device for the production and/or storage for later injection of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

Good Utility Practice - Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

Governmental Authority - Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Utility, or any affiliate thereof.

In-Service Date - The date upon which the construction of the Utility's facilities is completed and the facilities are capable of being placed into service.

Interconnection Agreement - The Interconnection Agreement that specifies the Detailed Estimated Upgrade Charge, Detailed Interconnection Facility Charge, mutually agreed upon Milestones, etc. See Attachment 9 of the NC Procedures.

Interconnection Customer - Any valid legal entity, including the Utility, that proposes to interconnect its Generating Facility with the Utility's System.

Interconnection Facilities - Collectively, the Utility's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Generating Facility to the Utility's System. Interconnection Facilities are sole use facilities and shall not include Upgrades.

Interconnection Facilities Delivery Date - The Interconnection Facilities Delivery Date shall be the date upon which the Utility's Interconnection Facilities are first made operational for the purposes of receiving power from the Interconnection Customer.

Interconnection Request - The Interconnection Customer's written request, in accordance with these procedures, to interconnect a new Generating Facility, or make changes to a prior Interconnection Request (such as items including but not limited to changes in capacity, equipment substitution requests, etc.), or to make changes to an existing Generating Facility that is interconnected with the Utility's System.

Interdependent Customer (or Interdependent Project) means an Interconnection Customer (or Project) whose Upgrade or Interconnection Facilities requirements are impacted by another Generating Facility, as determined by the Utility.

Material Modification means a modification to machine data or equipment configuration or to the interconnection site of the Generating Facility that has a material impact on the cost, timing or design of any Interconnection Facilities or Upgrades or that may adversely impact other Interdependent Interconnection Requests with higher Queue Numbers. Material Modifications include certain project revisions as defined in Section 1.5.1.

Maximum Generating Capacity - The term shall mean the maximum continuous electrical output of the Generating Facility at any time as measured at the Point of Interconnection and the maximum kW delivered to the Utility during any metering period. Requested Maximum Generating Capacity will be specified by the Interconnection Customer in the Interconnection Request and an approved Maximum Generating Capacity will subsequently be included as a limitation in the Interconnection Agreement.

Month - The term “Month” means the period intervening between readings for the purpose of routine billing, such readings usually being taken once per month.

Nameplate Capacity - The term “Nameplate Capacity” shall mean the manufacturer’s nameplate rated output capability of the generator. For multi-unit generator facilities, the “Nameplate Capacity” of the facility shall be the sum of the individual manufacturer’s nameplate rated output capabilities of the generators.

Net Capacity - The term “Net Capacity” shall mean the Nameplate Capacity of the Customer’s generating facilities, less the portion of that capacity needed to serve the Generating Facility’s Auxiliary Load.

Net Power - The term "Net Power" shall mean the total amount of electric power produced by the Customer's Generating Facility less the portion of that power used to supply the Generating Facility’s Auxiliary Load.

Network Upgrades - Additions, modifications, and upgrades to the Utility’s Transmission System required to accommodate the interconnection of the Generating Facility to the Utility’s System. Network Upgrades do not include Distribution Upgrades.

North Carolina Interconnection Procedures - The term “North Carolina Interconnection Procedures” shall refer to the most recent North Carolina Interconnection Procedures, Forms, and Agreements for State-Jurisdictional Generator Interconnections as approved by the North Carolina Utilities Commission.

Operating Requirements - Any operating and technical requirements that may be applicable due to Regional Reliability Organization, Independent System Operator, control area, or the Utility’s requirements, including those set forth in the Interconnection Agreement.

Party or Parties - The Utility, Interconnection Customer, and possibly the owner of an Affected System, or any combination of the above.

Point of Interconnection - The point where the Interconnection Facilities connect with the Utility’s System.

Preliminary Estimated Interconnection Facilities Charge - The estimated charge for Interconnection Facilities that is developed using high level estimates, including overheads and is presented in the System Impact Study Report. This charge is not based on field visits and/or detailed engineering cost calculations.

Preliminary Estimated Upgrade Charge - The estimated charge for Upgrades that is developed using high level estimates including overheads and is presented in the System Impact Study Report. This charge is not based on field visits and/or detailed engineering cost calculations.

Project A - An Interconnection Customer that has a lower Queue Number than Interdependent Project B.

Project B - An Interconnection Customer that has a higher Queue Number than Interdependent Project A.

Project C - An Interconnection Customer that has a higher Queue Number than Interdependent Project B.

Public Staff - The Public Staff of the North Carolina Utilities Commission.

Queue Number - The number assigned by the Utility that establishes an Interconnection Request's position in the study queue relative to all other valid Interconnection Requests. Generally, an Interconnection Request with a lower Queue Number will be studied prior to one with a higher Queue Number. , The Queue Number of each Interconnection Request shall be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection.

Queue Position - The order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, based on Queue Number.

Reasonable Efforts - With respect to an action required to be attempted or taken by a Party under the Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

Small Animal Waste to Energy Facility - An electric generating facility 2 MW or less in capacity that uses swine or poultry waste as its energy source, and is eligible for an expedited study process pursuant to G.S. 62-133.8(i)(4).

Standard - The interconnection procedures, forms and agreements approved by the Commission for interconnection of Generating Facilities to Utility Systems in North Carolina when the Generating Facility is selling its output to the Utility.

Standby Generating Facility - An electric Generating Facility primarily designed for standby or backup power in the event of a loss of power supply from the Utility. Such Facilities may operate in parallel with the Utility for a brief period of time when transferring load back to the Utility after an outage, or when testing the operation of the Facility and transferring load from and back to the Utility.

Study Process - The procedure for evaluating an Interconnection Request that includes the Section 4 scoping meeting, System Impact Study, including optional system Impact Grouping Study(ies), and Facilities Study.

System - The facilities owned, controlled or operated by the Utility that are used to provide electric service in North Carolina.

Utility - The entity that owns, controls, or operates facilities used for providing electric service in North Carolina.

Transmission System - The facilities owned, controlled or operated by the Utility that are used to transmit electricity in North Carolina.

Upgrades - The required additions and modifications to the Utility's System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

Description and Costs of the Generating Facility, Interconnection Facilities, and Metering Equipment

Detailed Description of "Interconnection Facilities": [BEGIN CONFIDENTIAL]

- 1. IPP#: [REDACTED]
- 2. Location (address): 172 Andrews Ave S. Hot Springs, NC 28743
- 3. Location (closest Duke Energy Progress location ID#): [REDACTED]
- 4. Maximum Physical Export Capability Requested: [REDACTED]
- 5. Description of interconnection facilities to be installed by Duke Energy Progress:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- 6. Nominal voltage at point of demarcation of facilities: [REDACTED]
- 7. Nominal voltage at metering location: [REDACTED]

INTERCONNECTION FACILITIES CHARGE

The total estimated cost for Interconnection Facilities is [REDACTED] The Customer shall pay the actual installed costs of the Interconnection facilities as they are incurred by the Company.

Adverse conditions may be encountered on the project that are not contemplated in the original design and result in additional expense to the Company to provide Interconnection Facilities. Customers will be charged for the additional expenses or, if the Customer has control of the involved property, the customer may elect to mitigate the adverse conditions. Examples of adverse conditions include: 1) encountering land having a composition such that standard construction equipment, materials, or methods cannot be used to install the Company's facilities, 2) encountering special requirements, fees, or permits of any entity, such as a railroad, municipality, or State/Federal agency or department, or 3) encountering and mitigating environmental requirements, etc.. Unforeseen adverse conditions will be billed to the customer as they are encountered.

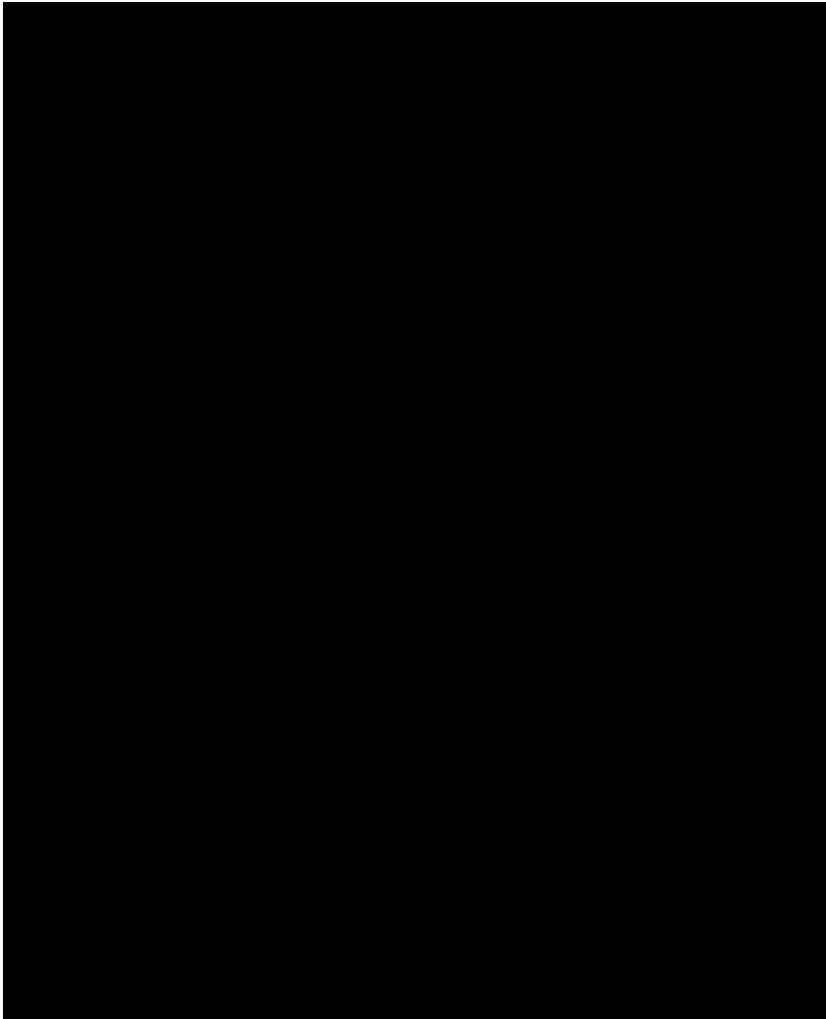
[END CONFIDENTIAL]

**One-line Diagram Depicting the Generating Facility,
Interconnection Facilities, Metering Equipment, and Upgrades**

[BEGIN CONFIDENTIAL]

This agreement will incorporate by reference the one-line diagram submitted by the Customer with file name "[REDACTED]" as part of the Interconnection Request, or as subsequently updated and provided to the Company.

The applicable Duke Energy Progress "White Book" figure applicable to this installation (subject to site visit adjustments) is: [REDACTED]



[END CONFIDENTIAL]

Milestones

Requested Upgrade In-Service Date: 08/05/2021

Requested Interconnection Facilities In-Service Date 08/05/2021*

Critical milestones and responsibility as agreed to by the Parties:

The build-out schedule does not include contingencies for deployment of Utility personnel to assist in outage restoration efforts on the Utility's System or the systems of other utilities with whom the Utility has a mutual assistance agreement. Consequently, the Requested In-Service Date may be delayed to the extent outage restoration work interrupts the design, procurement and construction of the requested facilities.

*In order to achieve the Requested Interconnection Facilities In-Service Date (RIFISD), the site must be ready as per the distribution standards outlined in Figure 70B (see Appendix 3) as of 12 weeks prior to the RIFISD or May 13, 2021. Failure to achieve the Site Readiness milestone will impact the RIFISD and could result in additional costs.

	Milestone	Completion Date	Responsible Party
1)	Execute and return Interconnection Agreement	March 26, 2021	Interconnection Customer
2)	Site Readiness	May 13, 2021	Interconnection Customer
3)	Construction scheduling	After execution of IA	Utility

Signatures on next page

Agreed to for Duke Energy Progress, LLC:

Name: Jeffrey W. Riggins
Jeffrey W. Riggins (Mar 15, 2021 15:40 EDT)

Print Name: Jeffrey W. Riggins

Date: Mar 15, 2021

Agreed to for the Interconnection Customer:

Name: Zak Kuznar
Zak Kuznar (Mar 12, 2021 15:41 EST)

Print Name: Zak Kuznar

Date: Mar 12, 2021

Additional Operating Requirements for the Utility's System and Affected Systems Needed to Support the Interconnection Customer's Needs

The Utility shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the Utility's System.

1. To prevent or limit degradation of power quality and/or reliability in service to other Utility customers, the Utility requires that the Interconnection Customer's facilities shall at all times be compatible with the design, safety, quality and construction of the Utility's electrical facilities, where facilities include, without limitation, overhead distribution lines, underground cable terminations, transformers, and transformer connections. For purposes of the foregoing, "compatibility" shall mean that the Interconnection Customer's facilities shall be designed, constructed and operated such that the Utility's standards for similar facilities are considered "minimum" standards when the Interconnection Customer is designing, constructing and operating its own facilities.

For purposes of the foregoing, the Utility permits Interconnection Customer to access, review, and reprint the Utility's Distribution Construction Specifications, to be used by the Interconnection Customer as minimum standards when designing, constructing and operating its facilities. Utility is not granting permission for the Interconnection Customer for all purposes, but only for the limited purpose of using the standards to assist the Interconnection Customer in meeting the minimum standards of compatibility with the Utility's system. The Interconnection Customer shall retain a professional engineer, licensed in the state where the facilities are being constructed, and shall instruct such engineer to meet the minimum standards set forth above. Further, this access is being granted solely for this project, and it is extended to the Interconnection Customer with the understanding that these designs and standards are the confidential property of the Utility.

2. An inspection certificate is required from the governing electrical inspector before the Utility will install the export revenue meter or allow operation of the facility. If the governing electrical inspector indicates that the installation is exempt from inspection authority, a written, signed statement from the governing electrical inspector for the specific installation will be required before the Utility will place the export revenue meter or allow operation of the facility. The inspection certificate or appropriate statement shall be sent to the Utility's Designated Operating Representative as detailed in this document.
3. The Interconnection Customer must provide the Duke Energy Progress

Distribution Interconnected Generation office with updated operational contact information at all times (email information to: DEPCustomerOwnedGeneration@duke-energy.com); specifically at least one name and telephone number that can be contacted 24 hours per day regarding any operational or safety issues regarding the interconnection or operation of the generating facility.

4. For synchronous machines: Unless otherwise specified by the Utility, the Utility will require the Generating Facility to not actively regulate voltage at the interconnection. Rather, the Generating Facility will have to operate at a fixed power factor when exporting. While the Generating Facility is free to run at the maximum kW as specified in the interconnection request, Utility will specify a power factor at which to operate (within the bounds of the generating facilities' reactive power capabilities, not to exceed +/- 0.95 power factor), and the Utility may change this specified power factor from time to time as system conditions warrant. The default power factor when exporting to the system is unity. This setting should be used until specified otherwise by the Utility.
5. For induction machines: The Utility will require the Generating Facility to not actively regulate voltage at the interconnection, consistent with the nature of induction machine characteristics. The Utility recognizes that the uncorrected power factor of an induction machine may not normally be within the bounds of +/- 0.95 power factor. The Utility will specify whether or not the Generating Facility must take steps to correct the power factor at the interconnection. Such determination will be based on interconnection studies and/or system conditions, and may change from time to time as system conditions warrant.
6. The Utility intends to allow the Interconnection Customer to continue to operate its facility when a Hot Line Tag is placed on the distribution feeder circuit breaker or on other protective devices on the feeder. The Utility retains the right to (1) use special settings or logic at the interconnection site during Hot Line Tag conditions and/or (2) require the Interconnection Customer to shut down its facility during Hot Line Tag conditions on any device on the distribution feeder (or other feeder if a feeder tie condition is in effect) if Utility staff dictates that special conditions warrant.
7. The Utility requires a single lockable and visible disconnecting means by which the generation source can be isolated from any and all parts of the utility system when necessary. This disconnecting means are owned by either the Interconnection Customer or by the Utility; however, in either case they must be visible, accessible, and operable by Utility personnel. Disconnecting means controlled at ground level

shall have locking mechanisms to allow Utility personnel to place a padlock in the open position.

8. UTILITY-OWNED INTERCONNECTION PROTECTION: Applicable only when an interconnection protection relay [used with either a utility recloser/circuit breaker, or configured to trip Generating Facility circuit breaker(s)], located at the point of demarcation, is owned by the Utility:
 - a. The Utility will operate the interconnection relay as a “one-shot” device; i.e., it is not configured to automatically reclose after tripping on overcurrent elements for faults on the generator side of the recloser. An interconnection protection relay exists primarily for interconnection protection, and the Utility will configure the device to trip for voltage and frequency excursions and faults as detected on the Utility side of the interconnection.
 - b. The Utility may still configure the relay, upon a return of normal frequency and voltage on the Utility system, to either (1) “release” its trip signal to the Generating Facility’s circuit breaker(s) or (2) configure a Utility-owned recloser/circuit breaker to automatically close and reconnect the Generating Facility to the Utility system.
 - c. In case of equipment failure associated with the interconnection relay (and/or utility recloser/circuit breaker), primary metering, or other associated facilities, the Generating Facility must remain offline until repairs are made. The interconnection recloser cannot be bypassed.
 - d. In the event that the Utility relay is in a “locked out” state and is holding the Generating Facility’s circuit breaker(s) or the Utility recloser/circuit breaker in an open state, the Interconnection Customer must attempt to locate the source of the fault that caused the relay to trip before contacting the Utility.
 - e. Once the fault is corrected, whether the fault was on Generating Facility equipment or Utility equipment, the Interconnection Customer must then initiate a request to be reconnected to the Utility system. The Utility requires that when the Interconnection Customer desires the Utility to release the relay trip signal or to close the interconnection recloser, requests to do so must be routed via telephone to the Duke Energy Progress Distribution Control Center (DCC). The Interconnection Customer, prior to contacting the DCC, must have patrolled their line and facilities. The Interconnection Customer must state clearly to the DCC that “they have all personnel and equipment in the clear and are ready for Duke Energy Progress to close the interconnection recloser.” If remote control

of the interconnection recloser is available to the DCC, the interconnection recloser will be closed via remote communications at that time. If remote control is not available to the DCC, the DCC will dispatch field personnel to travel to the interconnection recloser. The DCC will require further telephone contact with the Interconnection Customer when field personnel are at the site and preparing to close the recloser, at which time the Interconnection Customer must again state clearly to the DCC that “they have all personnel and equipment in the clear and are ready for Duke Energy Progress to close the interconnection recloser.”

9. Applicable for **(a)** interconnection protection relaying owned by Interconnection Customer (not inverter-based protection), or **(b)** for inverter-based protection that is equipped with means to be tested via conventional relay testing (with secondary injection of signal voltages less than 300 volts phase-to-ground), assuming such interconnection protection was approved by the Utility in lieu of Utility-owned interconnection protection:
 - a. The interconnection relaying shall have the following protection functions in place prior to initial commercial operation, unless otherwise specified by the Utility:
 - i. Under voltage setpoint #1 (27-1): 0.90 per unit, 10 cycle delay
 - ii. Under voltage setpoint #2 (27-2): 0.90 per unit, 10 cycle delay
 - iii. Over voltage setpoint #1 (59-1): 1.10 per unit, 10 cycle delay
 - iv. Over voltage setpoint #2 (59-2): 1.10 per unit, 10 cycle delay
 - v. Under frequency setpoint (81U): 57.0 Hz, 10 cycle delay
 - vi. Over frequency setpoint (81O): 60.5 Hz, 10 cycle delay
 - b. The Utility may change the required protection settings from time to time as system conditions warrant. The customer shall make protection settings changes within five business days of being notified by the Utility.
 - c. When Utility-owned interconnection protection is not present, and when the Utility has approved the design and settings of customer-owned interconnection protection relaying, and when such relaying is equipped with means to be tested via conventional relay testing (with secondary injection of signal voltages less than 300 volts phase-to-ground), the Utility may request,

- at its own option, that such customer-owned relaying shall be tested periodically. If the Utility requests such testing, it may be required prior to commercial operation, and afterwards at an interval of not more often than once every 6 years. The testing shall be performed by a company capable of power system relay testing services, using equipment calibrated no less often than once every two years and traceable to NIST standards.
- d. The relay testing activities shall demonstrate, at first testing and all periodic testing, that the relaying cause appropriate device tripping per the original design in effect at time of first commercial operation. The protection settings in the relaying must either trip the generator breaker(s) or the facility main breaker(s) such that in any case, the source of generation separates from the Duke Energy Progress distribution system when a trip is called for.
 - e. For the testing that is required prior to commercial operation, the Interconnection Customer shall provide notice to the Utility at least five business days prior to the estimated desired testing date. The Utility will then agree or request to reschedule a testing date in good faith based on the Interconnection Customer's estimated desired testing date.
 - f. For testing that is to be performed periodically, the Interconnection Customer shall provide notice to the Utility at least five business days prior to the estimated desired testing date. The Utility will then agree or request to reschedule a testing date in good faith based on the Interconnection Customer's estimated desired testing date. The Utility will be allowed the right to witness the testing, at its own option.
 - g. The Interconnection Customer shall provide one copy of all test reports (testing prior to commercial operation, plus periodic testing reports) to the Utility.
10. Applicable for interconnection protection relaying owned by Interconnection Customer (inverter-based protection) that is not equipped with means to be tested via conventional relay testing (with secondary injection of signal voltages less than 300 volts phase-to-ground), assuming such interconnection protection was approved by the Utility in lieu of Utility-owned interconnection protection:
- a. The inverter-based interconnection relaying shall have the following protection functions in place prior to initial commercial operation, unless otherwise specified in writing by the Utility:
 - i. Under voltage setpoint #1 (27-1): 0.90 per unit, 10 cycle delay

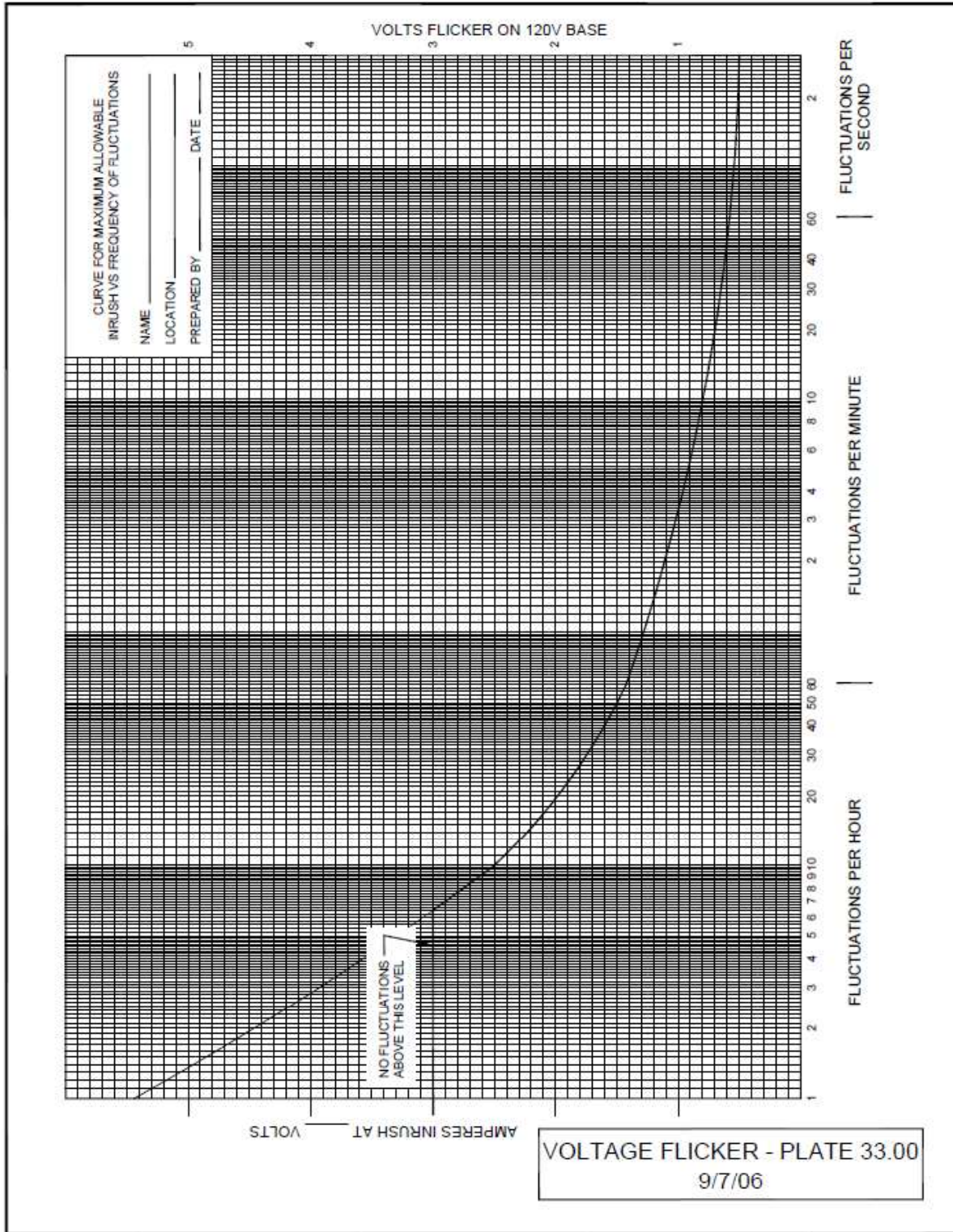
- ii. Under voltage setpoint #2 (27-2): 0.90 per unit, 10 cycle delay
 - iii. Over voltage setpoint #1 (59-1): 1.10 per unit, 10 cycle delay
 - iv. Over voltage setpoint #2 (59-2): 1.10 per unit, 10 cycle delay
 - v. Under frequency setpoint (81U): 57.0 Hz, 10 cycle delay
 - vi. Over frequency setpoint (81O): 60.5 Hz, 10 cycle delay
- b. The Utility may change the required protection settings from time to time as system conditions warrant. The customer shall make protection settings changes within five business days of being notified by the Utility.
- c. When Utility-owned interconnection protection is not present, and when the Utility has approved the design and settings of customer-owned inverter-based interconnection protection relaying, and such relaying is not equipped with means to be tested via conventional relay testing (with secondary injection of signal voltages less than 300 volts phase-to-ground), the Utility may request, at its own option, that such inverter-based customer-owned relaying shall be tested periodically per all available inverter manufacturer's internal testing diagnostics. If the Utility requests such testing, it may be required prior to commercial operation, and afterwards at an interval of not more often than once every 6 years. The testing shall be performed by either a manufacturer's representative or a testing company authorized by the manufacturer to perform functional testing on the inverter; documentation of such authorization will be required prior to any testing activities.
- d. For the testing that is required prior to commercial operation, the Interconnection Customer shall provide notice to the Utility at least five business days prior to the estimated desired testing date. The Utility will then agree or request to reschedule a testing date in good faith based on the Interconnection Customer's estimated desired testing date. The Utility will be allowed the right to witness the testing, at its own option. The Utility may also choose, at its own option, to perform its own testing of the inverter's functions through various methods, such as manual operation of single-phase switching devices on its system, depending on the nature of the interconnection and inverter.
- e. For testing that is to be performed periodically, the Interconnection Customer shall provide notice to the Utility at least five business days prior to the estimated desired testing date. The Utility will then agree or request to

- reschedule a testing date in good faith based on the Interconnection Customer's estimated desired testing date. The Utility will be allowed the right to witness the testing, at its own option.
- f. The Interconnection Customer shall provide one copy of all test reports (testing prior to commercial operation, plus periodic testing reports) to the Utility.
11. Required inverter settings for Interconnection Customer's generation facility:
- The Generating Facility is not required to operate at a Unity power factor at the Point of Interconnection (where utility-owned metering is located).**
12. Contact information for the Duke Energy Progress Distribution Interconnected Generation Office is specified herein:
- Duke Energy Progress, LLC
Distribution Interconnected Generation Office
c/o Customer Owned Generation - Mail Code ST26A
P.O. Box 1010
Charlotte, NC 28202
DEPCustomerOwnedGeneration@duke-energy.com
13. Failure of the Interconnection Customer to comply with all provisions herein, including providing notice of testing activities and providing test reports, can result in the Utility declaring the possibility of "Adverse Operating Effects" (under section 3.4.4 of the Interconnection Agreement), which could result in disconnection of the facility from the Utility's System.
14. Interconnection Customer agrees to limit the frequency of variations in generating facility output so as not to cause the voltage at the interconnection to exceed the maximum values shown by the curve on Exhibit A, a copy being attached hereto and hereby made a part hereof. In the event the Interconnection Customer's variations in facility output should cause the voltage at the interconnection to exceed the referenced curve, thereby adversely affecting Company's electrical system, the Interconnection Customer shall be responsible for correcting the situation. This will have to be done either by the Company's installation of additional facilities and equipment to correct the situation, in which case the Customer will be required to pay an appropriate charge for such additional facilities, or the Customer will be required to correct the situation to the Company's satisfaction by making changes to the operation of their facilities or by installing additional equipment within their facilities.

Interconnection Customer agrees to construct and maintain facilities that comply with the vegetation management guidelines presented herein, in Appendix 5, exhibit B.

[Remainder of page intentionally left blank. Exhibit pages to follow.]

Appendix 5, Exhibit A:



**PROGRESS ENERGY CAROLINAS
STANDARD PROCEDURES BULLETIN**

▶ **VEGETATION MAINTENANCE**

IT IS AN ESTABLISHED POLICY OF THE COMPANY TO MAINTAIN OVERHEAD LINES IN ORDER TO PROVIDE ESSENTIAL SERVICE OF DEPENDABLE QUALITY WITH MINIMAL INTERRUPTIONS IN A MANNER CAREFULLY CORRELATED WITH OTHER PUBLIC SERVICE FACILITIES.

COMPANY'S DISTRIBUTION EASEMENT AUTHORIZES COMPANY TO CLEAR AND KEEP CLEAR OF THE LINE ALL TREES AND OTHER OBSTRUCTIONS THAT MAY ENDANGER THE PROPER OPERATION AND MAINTENANCE OF THE OVERHEAD LINE. IF IT BECOMES IMPOSSIBLE TO MAINTAIN THE CLEARANCES SPECIFIED HEREIN, AN ECONOMIC ANALYSIS SHALL BE PERFORMED TO DETERMINE THE FEASIBILITY OF CONVERTING THE LINE UNDERGROUND IN ACCORDANCE WITH THE PROCEDURES FOR "UNDERGROUND INSTALLATION FOR COMPANY'S CONVENIENCE" AS STATED IN SECTION 9 OF THE STANDARD PRACTICES MANUAL.

LEANING TREES, WEAK OR DEFECTIVE TREES, AND DEAD LIMBS AND TREES THAT ARE OFF THE RIGHT-OF-WAY BUT HAZARDOUS TO LINE OPERATION SHOULD BE CUT OR PRUNED. WHERE REQUIRED, PERMISSION MUST BE OBTAINED FROM MUNICIPAL AUTHORITIES WHEN PRUNING TREES LOCATED ON CITY STREETS OR ALLEYS.

MAINTENANCE CYCLES

▶ THE COMPANY HAS ESTABLISHED A CYCLE-BASED STRATEGY TO PRIORITIZE ITS CIRCUITS FOR TRIMMING MEANING THAT LINES WILL BE MAINTAINED AT REGULAR, ESTABLISHED INTERVALS. THE STANDARD CYCLE FOR AN OVERHEAD DISTRIBUTION PRIMARY LINE IS 6 YEARS WHERE THE FULL 30 FOOT ROW CAN BE MAINTAINED USING ALL ELEMENTS OF THE DISTRIBUTION VEGETATION MAINTENANCE PROGRAM (DVMP). A SHORTER DURATION CYCLE GENERALLY 3 YEARS, WILL BE ESTABLISHED WHERE LOCAL ORDINANCES OR PERMITTING REQUIREMENTS DO NOT ALLOW MAINTENANCE OF THE FULL 30 FOOT ROW.

▶ IN ADDITION TO THE PLANNED MAINTENANCE CYCLES, REQUESTS FOR VEGETATION MAINTENANCE BY COMPANY EMPLOYEES AND CUSTOMERS WILL BE GENERATED IN THE WORK MANAGEMENT INFORMATION SYSTEM (WMIS) VIA A "REQUEST FOR TREE TRIMMING". THE VM REPRESENTATIVE FOR THE ARFA WILL REVIEW THE REQUEST TO DETERMINE IF CORRECTIVE ACTIONS ARE NECESSARY.

PRIMARY (DWG. 09.05-05)

▶ SPECIFICATIONS FOR CLEARANCE WILL BE BASED ON THE DISTANCE FROM CONDUCTORS, INCLUDING THE NEUTRAL, TO THE BRANCH TIPS OF ENCROACHING LIMBS. TREES WITH LIMBS THAT ENCROACH WITHIN EIGHT FEET (8') OF THE CLOSEST PRIMARY OR OPEN WIRE SECONDARY CONDUCTOR WILL BE PRUNED, WITH FEW EXCEPTIONS. EXCEPTIONS INCLUDE BUT ARE NOT LIMITED TO CITY ORDINANCES AND SLOW GROWING SPECIES. SLOW GROWING TREE SPECIES THAT ARE WITHIN EIGHT FEET BUT ARE NOT EXPECTED TO COME IN CONTACT WITH CONDUCTOR BEFORE THE NEXT TRIMMING DO NOT HAVE TO BE PRUNED. TREES WILL BE PRUNED BACK TO THE FULL WIDTH OF THE ESTABLISHED ROW, TYPICALLY FIFTEEN FEET (15') ON EITHER SIDE OF THE PRIMARY LINE UNLESS LIMITED BY LOCAL ORDINANCE OR SPECIAL CIRCUMSTANCES.

▶ **OPEN-WIRE SECONDARY**

VEGETATION NEAR OPEN-WIRE SECONDARY VOLTAGE LINES (GENERALLY, 120 TO 600 VOLTS) WILL BE PRUNED BASED ON THE DISTANCE FROM THE CONDUCTOR, INCLUDING THE NEUTRAL, TO THE TIPS OF ENCROACHING LIMBS. TREES WITH LIMBS WITHIN EIGHT FEET (8') OF THE CONDUCTOR WILL BE PRUNED. ONCE A DECISION HAS BEEN MADE TO PRUNE THE TREE, THE TREE WILL BE PRUNED BACK TO TYPICALLY TEN FEET (10') ON EITHER SIDE OF THE LINE. PROPER PRUNING TECHNIQUES SHALL BE USED WHEN OBTAINING CLEARANCE.

MULTIPLEX CABLES (HOUSE SERVICES)

VEGETATION NEAR MULTIPLEX CABLES AND GUY WIRES SHALL BE PRUNED IF LIMBS ARE IN DIRECT CONTACT AND ARE LOAD BEARING ON THE CONDUCTORS. LOAD BEARING IS DEFINED AS LIMB(S) THAT ARE IN CONTACT WITH CONDUCTORS AND CONSIST OF SIZE AND WEIGHT CAUSING TENSION ON THE CONDUCTOR OR INTERFERENCE WITH THE NORMAL SAG OR ALIGNMENT OF THE CONDUCTOR. SPECIAL CONSIDERATION SHOULD BE MADE DURING THE WINTER MONTHS WHEN THE WEIGHT OF THE LEAVES MAY BE OFF THE LIMBS RESULTING IN ONLY A SLIGHT CLEARANCE BETWEEN THE LIMB TO THE CONDUCTOR.

STREET/AREA LIGHTING ILLUMINATION

NORMALLY THE COMPANY DOES NOT PERFORM ANY TREE TRIMMING TO IMPROVE STREET/AREA LIGHT ILLUMINATION PATTERNS. IF TREE TRIMMING MUST BE DONE TO RETAIN THE LIGHT LEASE, SUCH TREE TRIMMING SHOULD BE MINIMAL AND COST EFFECTIVE.

3				
2				
1	4/11/12	JOHNSON	-	-
0	7/12/10	GLDWN	GLDWN	ELKINS
REVISED	BY	CK'D	APPR.	

TREE CLEARANCE AND PRUNING SPECIFICATIONS
(MAINTENANCE)

REDLINE COPY



CAR DWG. 09.05-02

Utility's Description of its Upgrades and Best Estimate of Upgrade Costs

The Utility shall describe Upgrades and provide an itemized best estimate of the cost, including overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Utility shall functionalize Upgrade costs and annual expenses as either transmission or distribution related.

In order to accommodate the generating capacity of this facility, upgrades to Duke Energy Progress' existing general distribution facilities will be required.

System Improvement upgrades and work cost estimate:

1. Reconductoring as follows:

[BEGIN CONFIDENTIAL]

[REDACTED]

2. Sectionalizing/protection changes as follows:

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

3. Other changes as follows:

[REDACTED]

[END CONFIDENTIAL]

[BEGIN CONFIDENTIAL]

The costs for these upgrades will be assignable to this facility via Duke Energy Progress' Contribution In Aid Of Construction (CIAC) plan. The charge shown below shall be payable prior to commencement of construction of these facilities.

Estimated Cost of Distribution System Upgrades	[REDACTED]
Amount to be paid to Duke Energy Progress by Interconnection Customer prior to start of the distribution system upgrades. Charge includes 7% NC Utility Sales Tax. <i>Note: System Upgrades are handled separately from Interconnection Facilities which are described in Appendix 2.</i>	[REDACTED]

[END CONFIDENTIAL]