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August 29, 2016

**VIA ELECTRONIC FILING**

Chief Clerk  
North Carolina Utilities Commission  
4325 Mail Service Center  
Raleigh, North Carolina 27699-4300

**RE: Docket No. E-100, Sub 101**

Dear Chief Clerk:

I write on behalf of Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP" and collectively "Duke") and hereby file for informational purposes with the North Carolina Utilities Commission ("Commission") the enclosed Settlement Agreement ("Agreement") among Duke and 33 Interconnection Customers, as specifically identified in the Agreement. The Agreement resolves recent informal disputes lodged by the Interconnection Customers under Section 6.2 of the North Carolina Interconnection Procedures ("NCIP"), disputing Duke's July 7, 2016 notice of implementation of additional impact study "circuit stiffness review" or "CSR" criteria for all utility-scale generator interconnection requests that, as of that date, are requesting to interconnect to DEC's or DEP's distribution system but had not obtained a fully-executed final Interconnection Agreement ("IA").

In recent months, Duke has seen a growing body of evidence that some utility-scale solar generators interconnected to the North Carolina distribution system in rural areas are detrimentally impacting normal distribution system operations and service quality to retail load customers. On June 24, 2014, Duke hosted an informational meeting with representatives of the solar industry and the Public Staff, and shared its concerns and experiences regarding power quality issues and service quality concerns reported by retail load customers. The Company also shared its plans to implement the CSR study criteria as part of its ongoing interconnection study process, as a proxy technical screen standard designed to ensure that the electric distribution system has sufficient capability or "stiffness" to support a proposed generating facility interconnection.

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On or about July 7, 2016, DEC and DEP began applying CSR as a technical screening criteria during the NCIP Section 4.3 system impact study (“SIS”) process. CSR is being applied to both inverter-based (solar) and non inverter-based generators. Duke also sent formal notification to all generator interconnection requests that had already completed the SIS process but had not obtained a fully-executed Final IA that Duke would undertake an expedited 20 Business Day CSR review for these Interconnection Customers’ projects (“Noticed Interconnection Customers”). Expedited CSR review would be completed in order of queue number priority, and proposed generators that passed CSR would proceed under the preliminary SIS interconnection solutions already established, while generators that failed CSR would be provided the options of undergoing additional impact study review to resolve the CSR failure or withdrawing their interconnection request.

Duke reported the results of the expedited CSR review to the Noticed Interconnection Customers on or before August 3, 2016, and Interconnection Customers that failed CSR are now requesting additional impact study or electing to withdraw from DEC’s or DEP’s respective interconnection queues.

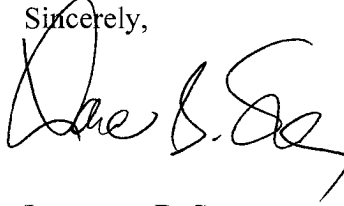
As described in the Settlement Agreement, a number of Noticed Interconnection Customers challenged Duke’s authority to apply additional CSR study criteria to generator interconnection requests that had already completed NCIP Section 4.3.3 SIS and, further, expressed concern that proposed generators in advanced stages of development would be unreasonably and unduly burdened and adversely impacted by additional CSR study. The Settlement Agreement reflects a compromise between Duke and the Settling Interconnection Customers that allows Advanced Development Projects, as defined in the Settlement Agreement (“ADP”), that failed CSR, to proceed under pre-established interconnection solutions, while providing Duke with power monitoring equipment and clearly-defined rights to disconnect an ADP generator if potential power quality impacts to the Duke system or retail customers caused by that generator occur in the future.

The Settlement Agreement also commits the parties to Solar 2.0 Policy Discussions and Technical Discussions to jointly explore alternative technical options for addressing any system reliability and power quality concerns, while acknowledging that Duke is responsible for designing and applying reasonable interconnection study criteria, in accordance with good utility practice, that facilitate the interconnection of generators to Duke’s electric system in a way that maintains system reliability and power quality to other customers.

In sum, Duke and the Settling Interconnection Customers have entered into the Settlement Agreement as a compromise and a reasonable accommodation to each other that balances their respective interests in grid reliability and power quality.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Lawrence B. Somers". The signature is fluid and cursive, with a large initial "L" and a stylized "S" at the end.

Lawrence B. Somers

Enclosures

cc: Tim R. Dodge, Esquire

## **SETTLEMENT AGREEMENT**

This Settlement Agreement is entered into the 24<sup>th</sup> day of August, 2016, by and among Duke Energy Carolinas, LLC (“DEC”) and Duke Energy Progress, LLC (“DEP”) (together “Duke”), and the Settling Interconnection Customers, as further identified on the signature pages appended to this settlement agreement (“Settling Interconnection Customers,” and together with Duke, the “Parties”) (“Agreement”). Terms not defined herein shall have the meaning set forth in the North Carolina Interconnection Procedures (“NCIP”) adopted by Order of the North Carolina Utilities Commission (“Commission”), issued May 15, 2015, in Docket No. E-100, Sub 101.

WHEREAS, DEC and DEP are public utilities operating in the State of North Carolina that are subject to the jurisdiction of the Commission and are “Utilities” subject to the NCIP or the predecessor interconnection standards adopted by the Commission;

WHEREAS, each Settling Interconnection Customer has submitted an Interconnection Request to interconnect a proposed utility-scale generating facility to the DEC or DEP distribution system under the NCIP.

WHEREAS, the Settling Interconnection Customers’ proposed generating facilities have each proceeded to advanced stages of the interconnection study process and have either executed an Interim Interconnection Agreement (“IA”) under NCIP Section 4.3.8 or executed a Final IA tendered by DEP or DEC under NCIP Section 5.2 prior to July 7, 2016.

WHEREAS, on or about July 7, 2016, Duke delivered to the Settling Interconnection Customers a Notification of Additional Evaluation of Proposed Distribution-Interconnected Utility-Scale Generators to Avoid Future Adverse Operating Effects (a “Notification of Additional Evaluation”), included herewith as Attachment 1. In that Notification, Duke disclosed that it was conducting an additional power quality evaluation of all utility-scale generators proposing to interconnect to DEC’s or DEP’s distribution system, specifically a “circuit stiffness review” (“CSR”), including all Interconnection Customers that had not obtained a fully-executed Final IA and paid associated Upgrades under NCIP Section 5.2.4. This included proposed generators that were far along in the interconnection process, such as Settling Interconnection Customers’ projects;

WHEREAS, Duke produced CSR Reports to interconnection customers on or before August 3, 2016, included herewith as Attachment 2, and the Settling Interconnection Customers were each notified that they had not passed CSR;

WHEREAS, because Settling Interconnection Customers’ proposed generating facilities all were the subject of a previously completed System Impact Study (“SIS”) performed by Duke, and because Duke’s implementation of this new and additional review could cause further delay for such projects, beginning on July 13, 2016, Settling Interconnection Customers issued Notices of Dispute (“NODs”) to Duke pursuant to Section 6.2 of the NCIP. The NODs informed Duke that Settling Interconnection Customers’ disputed Duke’s legal ability to implement and apply the CSR as an “additional study criteria” after having already completed the SIS provided for in the NCIP, and also advised Duke of Developer’s view that application of the CSR violates the NCIP as well as the Parties’ SIS Agreement, the Parties’ Facilities Study Agreement, and/or the Parties’ Interim IAs (collectively, the “Claims and Disputes”);

WHEREAS, Duke responded to the NODs by stating that it viewed completing the CSR as appropriate under the NCIP and as a necessary evaluation for all queued Interconnection Customers that received the Notification of Additional Evaluation, for the reasons provided in that notice. Duke further stated that it is singularly responsible for designing and applying reasonable interconnection study criteria, in accordance with good utility practice, that facilitate the interconnection of generators to Duke's electric system in a way that maintains system reliability and power quality to other customers. However, Duke agreed to participate in good faith discussions to resolve the NODs pursuant to NCIP Section 6.2, and to attempt to develop terms and conditions acceptable to Duke that would allow "advanced development projects" to move forward under pre-CSR interconnection solutions under specified conditions consistent with Duke's ongoing responsibility of assuring that power quality and reliable electric service to all customers is maintained;

WHEREAS the Parties have negotiated in good faith to address the issues created by the Notification of Additional Evaluation, the Claims and Disputes set forth in the NODs, and the Parties' mutual interest in safety and grid reliability; and

WHEREAS those discussions and negotiations enabled the Settling Interconnection Customers, the North Carolina Clean Energy Business Alliance ("NCCEBA"), and Duke to agree on a Memorandum of Understanding on August 12, 2016, included herewith as Attachment 3 ("the MOU"). Pursuant to Section 6.b of the MOU, Duke and Settling Interconnection Customers now desire to memorialize herein the terms upon which they agree to resolve the disputes noticed in the NODs.

NOW, THEREFORE, for and in consideration of the foregoing, the mutual commitments and promises set forth herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Duke and Settling Interconnection Customers agree as follows:

1. Expedited Informal Technical Discussions with Developers and Industry Informational Meeting(s).

Duke shall participate in a series of informal technical discussions ("Technical Discussions"), which discussions shall include the Public Staff, the Settling Interconnection Customers and one technical representative from the NCCEBA, for consideration and consensus-building with regard to power quality concerns, the CSR and related technical implications thereof, advanced study criteria to be applied during the impact study phase, and potential alternative approaches to addressing power quality concerns. The Technical Discussions are intended to provide a forum for, among other CSR-related matters, constructive technical discussions concerning Duke's CSR study criteria; how CSR is being applied as a proxy screen; and any additional study process to be implemented for projects that fail CSR.

The Parties further agree as follows with regard to the Technical Discussions:

- a. The initial Technical Discussion will be held not later August 31, 2016, and further Technical Discussions will be held regularly thereafter, with the Parties to make good faith efforts to reach consensus within 45 days of said date.

- b. In addition to the ongoing Technical Discussions, Duke shall host one or more informal industry-wide informational meetings addressing the CSR Reports and additional study process within 30 days of the execution of this Agreement.
- c. Settling Interconnection Customers and NCCEBA shall discuss with and encourage industry associations and other industry participants to forbear from the filing of any complaint or any similarly styled pleading at the Commission during the pendency of the Technical Discussions.
- d. Should a complaint be filed with the Commission by a Settling Interconnection Customer, industry association or other industry participant relating to CSR at any time during the pendency of the Technical Discussions, the Parties acknowledge that Duke may, and shall be entitled to, withdraw from additional informal Technical Discussions in anticipation of preparing its litigation defense.
- e. All information and proposals shared during the Technical Discussions will be shared and considered in good faith and on a confidential basis, as informal settlement discussions that are not admissible in any future proceeding before the Commission.
- f. Settling Interconnection Customers agree not to take any further action challenging CSR at the Commission with respect to the projects for which a Final IA is entered into pursuant to this Agreement.

## 2. Solar 2.0 Policy Discussions.

Duke and Settling Interconnection Customers commit to engage in good faith discussions in the next 60 days regarding potential policy recommendations to efficiently address the backlog of proposed utility-scale distribution-connected interconnection requests in DEC's and DEP's interconnection queues, to promote sustainable long-term solar energy deployment for the benefit of Duke's customers, and to facilitate prospective solar development policies that are compatible with Duke and Settling Interconnection Customers' desire for grid stability and reliability ("Solar 2.0 Discussions"). The Parties further agree that all information and proposals shared during the Solar 2.0 Discussions will be shared and considered in good faith and on a confidential basis, as informal settlement discussions that are not admissible in any future proceeding before the Commission.

## 3. Certain Payments to Maintain Advanced Development Status.

- a. To the extent Settling Interconnection Customer has not paid to DEC/DEP all applicable Upgrades/Facilities Charges for projects that have partially executed and returned a Final IA, Settling Interconnection Customer must pay all such charges within the period allowed in NCIP Section 5.2.4, following DEC/DEP providing Settling Interconnection Customer an amended Final IA for such project consistent with the terms and conditions of this Agreement. Failure to make such payment with respect to a project in a timely fashion shall result in such project not obtaining the relief set forth herein.
- b. To the extent Settling Interconnection Customer has not paid to DEC/DEP all applicable Preliminary Estimated Upgrade Charges and Preliminary Estimated

Facilities Charges (or acceptable financial security) determined through System Impact Study, as identified in NCIP § 4.3.4, for those projects that have executed and returned an Interim IA to DEC/DEP, as described in NCIP § 4.3.8 and where the Interim IA has been executed by DEC/DEP, Settling Interconnection Customer must pay all such charges (or post acceptable financial security) within ten (10) business days following DEC/DEP providing Settling Interconnection Customer an amended Final IA superseding any Interim IA previously entered into between the Parties. Failure to make such payment with respect to a project in a timely fashion shall result in such project not obtaining the relief set forth herein.

4. Terms and conditions to be included in Advanced Development Projects' Final IAs.

The Settling Interconnection Customers each accept and agree that the Interconnection Customer's election to proceed with interconnection under pre-CSR Upgrades and Facilities solutions pursuant to this Agreement shall be subject to the following mutually-agreed upon terms and conditions, as required by Duke to be included in the Final IA:

- a. Power quality monitoring equipment, as described in Exhibit A to this Agreement shall be included in Appendix 2 as an addition to the interconnection facilities. Such equipment shall be installed, owned and maintained by DEC or DEP (and paid for by the Interconnection Customer as part of the Appendix 2 facilities). Duke shall not delay a permission-to-operate authorization in cases where such monitoring equipment is not readily available.
- b. IA Section 3.4.4, Adverse Operating Effects, shall be amended to require the Settling Interconnection Customer to acknowledge and accept risk of immediate disconnection if future adverse power quality impacts relating to CSR and caused by the generating facility arise. Exhibit B to this Agreement sets forth the agreed-upon revisions to Section 3.4.4.
- c. IA Section 7.3.2 shall be amended to recognize that the applicable Settling Interconnection Customer shall be obligated to indemnify DEC/DEP for damages under Section 3.4.4 or 3.4.1 arising from adverse power quality impacts relating to CSR and caused by the generating facility. Exhibit C to this Agreement sets forth the agreed-upon revisions to Section 7.3.2.

5. Timeline and additional conditions for proposed Settlement Agreement.

- a. DEC/DEP agree to expeditiously proceed to execution and delivery of a Final IA for all Settling Interconnection Customer projects. Duke further agrees to work in good faith to a) adhere to any informally-agreed upon construction milestone schedule for the Settling Interconnection Customer projects where DEC or DEP has commenced construction of upgrades under an Interim IA; and b) recommence work that has already begun on the construction of upgrades necessary for interconnection of Settling Interconnection Customers' projects prior to the execution of a Final IA based upon the Settling Interconnection Customer's commitment to proceed with interconnection as provided for herein.
- b. DEC/DEP and Settling Interconnection Customers agree that this Agreement may be filed with the Commission by Duke in Docket No. E-100, Sub 101 for informational



purposes within 10 days of execution; however, such filing shall not delay implementation of the Parties' obligations under this Agreement.

6. Release.

- a. This Agreement fully resolves all Claims and Disputes. Settling Interconnection Customer hereby releases and discharges all such Claims and Disputes it may have against DEP/DEC, its parent, subsidiary and affiliated entities, and their officers, directors, agents, and employees, as to the specific Interconnection Requests and proposed generating facilities that are the subject of this Agreement, whether asserted at the Commission or any other competent forum.

7. Miscellaneous.

- a. This Agreement constitutes a negotiated settlement and is the result of a compromise by the Parties. The Agreement does not constitute and shall not be construed to constitute an admission of liability or wrong doing. This Agreement shall not be cited as precedent, nor shall it be deemed to bind Duke or any Settling Interconnection Customer (except as otherwise expressly provided for herein with respect to the Claims and Disputes), in any future proceeding, including proceedings before the Commission, or for any generation project not specifically covered by this Agreement.
- b. The parties hereto agree to execute and deliver such other and further agreements or documents as may be necessary to effectuate fully the agreements and intentions of the parties as expressed herein.
- c. This Agreement may be executed independently in any number of counterparts, each of which when executed and delivered, shall constitute an agreement which shall be binding upon the parties notwithstanding that the signatures of all parties and/or their designated representatives do not appear on the same page. Facsimile, PDF and electronic signatures shall have the same effect as original signatures.
- d. The parties and their signatories warrant that each has the power and authority to execute this Agreement; and the parties voluntarily execute this Agreement based on their own independent investigations.
- e. This Agreement and all documents referenced herein shall be governed and interpreted under the laws of the State of North Carolina and is subject to the jurisdiction of the Commission.
- f. The provisions of this Agreement shall be interpreted in a manner consistent with each other to carry out the purposes and intentions of the parties. If for any reason any provision of this Agreement is held unenforceable or invalid, that provision shall be deemed severed from this Agreement and the remaining provisions shall not be affected.

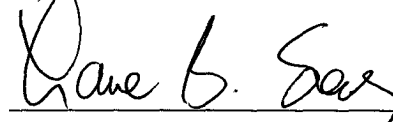


- g. This Agreement contains the ENTIRE AGREEMENT between the parties hereto, and the terms and conditions thereof are contractual in nature and not mere recitals. Each party acknowledges and agrees that it has read fully and understood this Agreement; that they understand that such document involves substantial legal rights; that they have had the opportunity to review and discuss same with their own counsel; and that each party enters this Agreement of its own free act, without any measure of duress.
- h. The Attachments to this Agreement (but not the Exhibits) are included for background reference purposes only, and shall have no effect on the provisions hereof. The Exhibits to this Agreement (but not the Attachments) shall control in the event any conflict or inconsistency exists between the terms of this Agreement and that of any Exhibit.

IN WITNESS WHEREOF, the parties have signed, executed and agree to the foregoing Settlement Agreement.

Duke Energy Progress, LLC / Duke Energy  
Carolinas, LLC

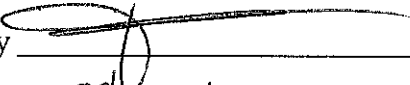
By



Lawrence B. Somers  
Deputy General Counsel

[Additional Signatories on Subsequent Pages]

*FLS Energy, Inc., on its own behalf and in its authorized capacity on behalf of the Settling Interconnection Customer(s) identified below*

By 

Date 8/25/16

<b><u>Interconnection Customer:</u></b>	<b><u>Interconnecting Utility:</u></b>	<b><u>Queue Number:</u></b>
Lanier Solar, LLC	Duke Energy Progress, LLC	CHKLIST-7984
Innovative Solar 65, LLC	Duke Energy Progress, LLC	CHKLIST-7974
Carol Jean Solar, LLC	Duke Energy Carolinas, LLC	CHKLIST-2348
Lincoln Solar, LLC	Duke Energy Carolinas, LLC	CHKLIST-8625
Exum Farm Solar, LLC	Duke Energy Progress, LLC	CHKLIST-8091
Kennedy Solar, LLC	Duke Energy Progress, LLC	CHKLIST-7959
Pollocksville Solar, LLC	Duke Energy Progress, LLC	CHKLIST-7952
Franklinton Solar, LLC	Duke Energy Progress, LLC	CHKLIST-7958
Lillington Solar, LLC	Duke Energy Progress, LLC	CHKLIST-7990
Barker Solar, LLC	Duke Energy Progress, LLC	CHKLIST-8373
Baltimore Church Solar, LLC	Duke Energy Progress, LLC	CHKLIST-8132

*Cypress Creek Renewables, LLC, on its own behalf and in its authorized capacity on behalf of the Interconnection Customer(s) identified below*

By: 

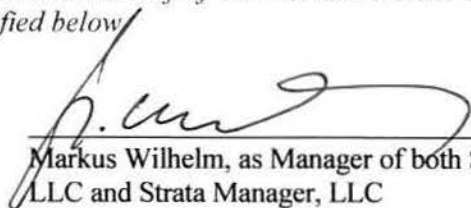
Matt McGovern

Date: August 24, 2016

Interconnection Customer:	Interconnecting Utility:	Queue Number:
ABD Farm Solar, LLC	Duke Energy Progress	CHKLIST-7968
Bearford Solar II, LLC	Duke Energy Progress	CHKLIST-7963
Bo Biggs Solar, LLC	Duke Energy Progress	CHKLIST-8568
Broadridge Solar, LLC	Duke Energy Progress	CHKLIST-8134
Gainey Solar, LLC	Duke Energy Progress	CHKLIST-7875
Kelly Solar, LLC	Duke Energy Progress	CHKLIST-8108
Siler City Solar, 2 LLC	Duke Energy Progress	CHKLIST-8673
Stainback Solar Farm, LLC	Duke Energy Progress	CHKLIST-7926
Statesville Solar, LLC	Duke Energy Carolinas	CHKLIST-3905

*Strata Solar, LLC, on its own behalf and together with Strata Manager, LLC in their respective authorized capacities on behalf of the Interconnection Customer(s) identified below*

By:

  
Markus Wilhelm, as Manager of both Strata Solar, LLC and Strata Manager, LLC

Date: August 12, 2016

<u>Interconnection Customer:</u>	<u>Interconnecting Utility:</u>	<u>Queue Number:</u>
Bunn Level Farm, LLC	DEP	7869
Old Wire Farm, LLC	DEP	8517
Spencer Farm, LLC	DEC	3193
Spring Valley 2 Farm, LLC	DEP	7870
Deep Branch Farm, LLC	DEP	8911
Fremont Farm, LLC	DEP	7787
Moorings Farm 2, LLC	DEP	7932
Bearford Farm, LLC	DEP	7936
Beaker Farm, LLC	DEP	8429

*Pine Gate Development, LLC, on its own behalf and  
in its authorized capacity on behalf of the Settling  
Interconnection Customer(s) identified below*

By  James Luster

Date 8/26/2016

<u>Interconnection Customer:</u>	<u>Interconnecting Utility:</u>	<u>Queue Number:</u>
Nash 97 Solar 2 LLC	Duke Energy Progress	CHKLIST-8137

*ESA Renewables II, LLC, on its own behalf and in its authorized capacity on behalf of the Settling Interconnection Customer(s) identified below*

By Attwood

Date 8-26-16

<b><u>Interconnection Customer:</u></b>	<b><u>Interconnecting Utility:</u></b>	<b><u>Queue Number:</u></b>
Old Caroleen Solar Farm, LLC	Duke Energy Carolinas, LLC	8897

*[Developer], on its own behalf and in its authorized capacity on behalf of the Settling Interconnection Customer(s) identified below*

By 

Date 8/29/16

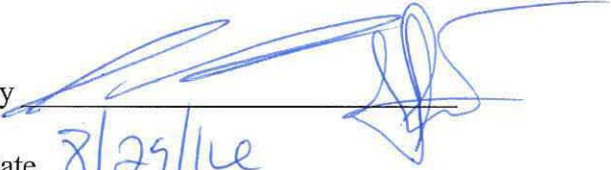
<u>Interconnection Customer:</u>	<u>Interconnecting Utility:</u>	<u>Queue Number:</u>
Red Toad 4451 Buffalo Road, LLC	Duke Energy Progress LLC	8408



*Capital Dynamics, Inc., on its own behalf and in its authorized capacity on behalf of the Settling Interconnection Customer(s) identified below*

By

Date

  
8/29/16

<u>Interconnection Customer:</u>	<u>Interconnecting Utility:</u>	<u>Queue Number:</u>
ZV Solar 2	Duke Energy Progress	CHKLIST-7978

Exhibit A

Power quality monitoring equipment shall be included in the required interconnection facilities identified in Appendix 2 of an IA entered into under this Agreement. Such equipment shall be installed, owned and maintained by DEC or DEP. Duke will provide power monitoring data to the Interconnection Customer on a reasonable as-requested basis to support any diagnostics or other needs identified in writing by the Interconnection Customer.

Appendix 2 will include the following (or substantially similar language):

Installation of Power Quality Metering (PQM) is required for this Generating Facility, at a projected cost to the Interconnection Customer of approximately \$25,000, to be trued up through a final accounting, as needed. PQM equipment shall consist of a power quality meter (Schweitzer Engineering Laboratories SEL735 model or similar) installed at the Point of Interconnection immediately adjacent to the revenue metering installation and/or the interconnection recloser installation. The PQM will include communications infrastructure for remote data acquisition by Duke Energy personnel (and Duke Energy contractors with access to Duke internal systems).

Exhibit B

## 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 "CSR" provision set forth below or the provisions Article 3.4.1 apply, in which case immediate temporary disconnection is permitted.

Without limiting the generality of the foregoing, and without limiting Utility's rights under Article 3.4.1, the Parties recognize and agree that prior to the Effective Date of this Agreement, the Utility provided the Interconnection Customer with the Circuit Stiffness Review analysis set forth in Appendix 7 ("the "CSR"). The CSR identified the need for additional study to determine whether modifications to the Generating Facility or additional Upgrades to the Utility's System and/or Interconnection Facilities are necessary to avoid potential adverse effects to the Utility's System or electric service to other customers served from the same electric system. Interconnection Customer chose to proceed, and the Parties thereafter proceeded with interconnection without such recommended additional study, and, accordingly, Interconnection Customer acknowledges that the Utility shall have the right to immediately disconnect the Generating Facility if the Utility determines, in its reasonable judgment based on Good Utility Practice, that a circuit-stiffness related condition or occurrence arising after the date of this Agreement and caused or to be caused by interconnection or operation of the Generating Facility has occurred or is imminently likely to occur and that immediate disconnection is necessary to avoid or mitigate adverse effects on the Utility's System or electric service to other customers. The Utility may not base a determination under this paragraph "that a circuit-stiffness related condition or occurrence has occurred or is imminently likely to occur" or determination under the following paragraph that "a circuit-stiffness related condition caused by interconnection or operation of the Generating Facility is reasonably likely to cause an occurrence that could necessitate disconnection in order to avoid or mitigate adverse effects on the Utility's System or electric service to other customers" solely on the fact that a CSR identified the need for additional studies to determine whether modifications to the Generating Facility or additional Upgrades to the Utility's System and/or Interconnection Facilities are necessary to avoid potential adverse effects to the Utility's System or electric service to other customers served from the same electric system. In the event of an immediate disconnection, Utility shall promptly provide notice of same to the Interconnection Customer and a detailed explanation of the reasons for its action.

In the event that Utility reasonably determines, based on Good Utility Practice, that a circuit-stiffness related condition caused by interconnection or operation of the Generating Facility is reasonably likely to cause an occurrence that could necessitate disconnection in order to avoid or mitigate adverse effects on the Utility's System or electric service to other customers, but that such an occurrence is not imminent, Utility shall immediately provide notice to the Interconnection Customer

of the condition, and Interconnection Customer shall then have a reasonable opportunity to investigate and address the condition identified by the Utility. Unless Interconnection Customer fails to promptly address or remedy the condition, or unless Utility determines that the condition reasonably likely to be caused by the Generating Facility has occurred or is imminently likely to occur, Utility shall not disconnect the Generating Facility until Interconnection Customer has had a reasonable opportunity to address the condition identified by the Utility.

In all of the foregoing events, disconnection of the Generating Facility shall be considered temporary, and promptly after such disconnection, Utility shall provide supporting documentation used to reach the decision to disconnect the Generating Facility and the Parties shall promptly meet to discuss remedies to remove or address the adverse condition and any potential interim measures that may permit reconnection or partial reconnection of the Generating Facility while a permanent remedy is implemented, if necessary. Interconnection Customer shall be responsible for costs reasonably incurred by the Utility in its assessment of the condition necessitating the disconnection as well as the costs of any action or facilities that the Utility determines, in its reasonable judgment based on Good Utility Practice, are necessary to eliminate the condition necessitating the disconnection. If the parties are unable to agree on necessary remedial actions or the timing of reconnection of the Generating Facility, either party may submit their disagreement to the North Carolina Utilities Commission for resolution.

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. Interconnection Customer acknowledges that its indemnification obligations under and subject to this Section 7.3.2 include any damages or losses incurred by Utility due to disruption or deterioration of service or damage to other customers' property caused by a condition at the Generating Facility prior to disconnection pursuant to Section 3.4.4 or Section 3.4.1.

Attachment 1

OFFICIAL COPY

Aug 29 2016

[Sample Notification of Additional Evaluation Letter]

**From:** DERContracts <DERContracts@duke-energy.com>  
**Sent:** Thursday, July 07, 2016 12:15 PM  
**To:** legal@stratasolar.com; interconnections@stratasolar.com; jnaftel@stratasolar.com  
**Cc:** Grant, Christopher T; Cathcart, Phillip  
**Subject:** CHKLIST [REDACTED] - Notification of Additional Evaluation of Proposed Distribution-Interconnected Utility

\*\*\* Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. \*\*\*



7/7/2016

[REDACTED]  
50101 Governors Drive Suite 280  
Chapel Hill, NC 27517

Queue Number: CHKLIST-[REDACTED]

RE: Notification of Additional Evaluation of Proposed Distribution-Interconnected Utility-Scale Generators to Avoid Future Adverse Operating Effects

Dear Arborgate Farm LLC,

This letter is to advise you that Duke Energy (the “Company”) is undertaking an additional system impact evaluation of all proposed utility-scale generators requesting to interconnect to the Company’s distribution system under the State-Jurisdictional Interconnection Procedures’ (“Procedures”) Section 4 Standard Study process.[\[1\]](#)

Recently, the Company has documented adverse power quality impacts to industrial and commercial customer loads, including both disruption of distribution system operations and deterioration of service quality to impacted customers. The Company has determined that the recent adverse power quality impacts are linked to the interconnection of distribution system-interconnected utility-scale generators in areas where the capability or “stiffness” of the electric system is insufficient to support such facilities.[\[2\]](#) These recently-experienced adverse operating impacts on other customers necessitate further evaluation of the grid capability needed to reliably interconnect larger generators at the distribution



level in order to avoid potential future adverse operating impacts to the Company's electric system and service to other customers ("Circuit Stiffness Review").

The Company is commencing the Circuit Stiffness Review on July 6, 2016, and estimates to complete the review within the next 20 business days for all Interconnection Customers that have completed the Section 4.3 impact study process and received a System Impact Study Report. This Circuit Stiffness Review will identify areas of high penetration and low grid stiffness in order to assure that proposed utility-scale interconnections to the Company's distribution system are feasible and that interconnection facilities and system upgrades are designed in a manner that will avoid detrimental impacts to grid operations and power quality in the future. The Company will complete the Circuit Stiffness Review serially in order of queue number. Results will then be reported to the interconnection customer in writing, and the Company will meet with each interconnection customer (if requested) regarding the Circuit Stiffness Review determination. This meeting will be for the purpose of discussing the Circuit Stiffness Review outcomes and informing the interconnection customer whether the proposed generator can proceed to the Section 5 construction planning and interconnection agreement development process or must return to the Section 4 Study process for additional review of interconnection solutions to address stiffness deficiencies identified in the Circuit Stiffness Review.

In closing, the Company is committed to meeting its ongoing responsibility of interconnecting generators to its electric system in a way that ensures system integrity and reliability of service are maintained for all customers. Please do not hesitate to contact Phillip Cathcart should you have any questions.

Sincerely,

Phillip Cathcart  
Duke Energy Corporation  
Renewable Compliance and Origination

[1] At this time, the Company is not proposing to restudy interconnected generators or generators that have received a fully-executed interconnection agreement and have commenced construction under Section 5 of the Procedures. However, the Company reserves all of its rights under the State-Jurisdictional Interconnection Agreement, including its right to disconnect any generator that causes adverse operating effects to other customers on the Company's System.

[2] Grid stiffness, also known as a "stiffness ratio," is defined in IEEE 1547.2 as the relative strength of the area electric power system ("EPS") at the point of common coupling compared with the distributed resource, expressed in terms of the short-circuit kilovoltamperes of the two systems. The general term "stiffness" refers to the ability of an area EPS to resist voltage deviations caused by DR or loading. See IEEE Std 1547.2<sup>TM</sup>-2008, IEEE Application Guide for IEEE Std 1547, IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems, at page 4.

Attachment 2

[Sample CSR Report Letter]

Breitschwerdt, E. Brett

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**From:** DERContracts <DERContracts@duke-energy.com>  
**Sent:** Wednesday, August 03, 2016 9:46 AM  
**To:** legal@stratasolar.com; interconnections@stratasolar.com; jnaftel@stratasolar.com  
**Cc:** Cathcart, Phillip; DERContracts  
**Subject:** CHKLIST-[REDACTED] - Notification of Circuit Stiffness Review Report of Proposed Distribution  
**Attachments:** [REDACTED] DEP NOTICE TO PROCEED.pdf; CHKLIST-08576 Stiffness Results.docx; CSR (Circuit Stiffness Review) Report-20160727.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

\*\*\* Exercise caution. This is an EXTERNAL email. DO NOT open attachments or click links from unknown senders or unexpected email. \*\*\*



8/3/2016

[REDACTED]  
50101 Governors Drive Suite 280  
Chapel Hill, NC 27517

Queue Number: CHKLIST-[REDACTED]

RE: Circuit Stiffness Review Report

Dear Arborgate Farm LLC,

This letter is to advise you that Duke Energy Progress, LLC (the “Company”) has completed the Circuit Stiffness Review for the above-referenced generator interconnection request, as identified in the Company’s July 6, 2016, letter to you. As further described in the enclosed Circuit Stiffness Review Report (“CSR Report”), the Company has determined that the existing local substation and/or distribution circuit does not provide sufficient short circuit capability or “grid stiffness” to support interconnection of the proposed generator without additional review of the proposed interconnection on the reliability of the electric system under the North Carolina Interconnection Procedures (“NCIP”) Section 4 Study process. [1]

To request that the Company proceed with additional study of the proposed generator interconnection request, execute the enclosed Notice to

Proceed and return it to your account manager. This Notice to Proceed will authorize the Company to commence additional system impact study (“SIS”) review under NCIP Section 4.3 in order to evaluate and propose interconnection solutions that address deficiencies identified through the CSR Report, as may be necessary to maintain system integrity and reliability of service for the proposed generating facility and all other customers on the local distribution system. Prior to proceeding with additional SIS review, you may request a meeting with the Company to discuss the CSR Report, as well as the SIS process that the Company will follow to determine interconnection solutions that address deficiencies identified in the CSR Report.

A response to this letter, either requesting additional Section 4 study review by returning the signed Notice to Proceed or requesting a Circuit Stiffness Review results meeting (meeting requests must be made in writing), is required within 15 business days of the date of this letter, or the interconnection request will be deemed withdrawn from the Company’s interconnection queue. If a Circuit Stiffness Review results meeting is requested, the interconnection customer is allowed an additional five business days from the date that the meeting occurs to submit the executed Notice to Proceed or the interconnection request will be deemed withdrawn.

In closing, the Company is committed to meeting its ongoing responsibility of interconnecting generators to its electric system in a way that ensures system integrity and reliability of service are maintained for all customers. Please do not hesitate to contact Phillip Cathcart should you have any questions. Sincerely,

Phillip Cathcart  
Duke Energy Corporation  
Renewable Compliance and Origination

[\[1\]](#) This notice is being provided pursuant to NCIP Section 4.2.3.



Project Results for CHKLIST - [REDACTED] - [REDACTED] LLC			
POI Stiffness Results: Fail	Substation Stiffness Results: Fail		
Stiffness Parameters and Values			
Project Export Capacity (MW)	5		
Project Maximum Facility Rating (MVA)	5.28		
Utility-Scale Project Capacity Limit for Substation (based on minimum stiffness factor of 25 at substation bus) (MVA)	5.96		
Short Circuit Value at Substation Bus (MVA)	149		
Short Circuit Value at POI (MVA)	94.67		
Stiffness Factor at POI	17.93		
Substation Designation	Project B or later on the Substation		
Standard Pre-Request Information			
Feeder/Circuit ID	T2250B02		
Circuit Voltage (KV)	23		
Substation Name	Pittsboro		
Substation Capacity (MVA)	25		
Distance to the Substation (Miles)	3.45		
Distance to the Nearest Three Phase Conductor (Miles)	0.69		
Distance to the Nearest Heavy Three Phase Conductor (Miles)	0.69		
Existing Utility-Scale Projects on Feeder (online and in the queue excluding this proposed project)	Queue #	MW	Feeder/Circuit ID
	N/A	N/A	N/A
Existing Utility-Scale Projects on Substation (online and in the queue excluding this proposed project)	Queue #	MW	Feeder/Circuit ID
	CHKLIST - 8121	5.000	T2250B01
	CHKLIST - 8122	5.000	T2250B01

### Stiffness factor background & evaluation basis

The stiffness factor evaluation is being applied to all Section 4 Study Process interconnections of proposed generating facilities to Duke Energy's distribution system.<sup>1</sup> The stiffness factor evaluation is focused on the impact of the proposed generator interconnection on the reliability of the local electric distribution system, including ensuring that the electric distribution system has sufficient capability or "stiffness" to support the proposed generating facility interconnection. The need for this Circuit Stiffness Review is informed by recently-experienced adverse operating effects (disruption and/or deterioration of service) reported by Duke Energy retail customers that, through additional analysis, the Company has linked to recently-interconnected utility-scale distributed energy resources (DER) generators on the local distribution circuit.

The stiffness factor evaluation takes into account the actual equivalent system impedance at the point of interconnection (POI) and the relative size of the proposed generating facility. The evaluation also looks at the impact of multiple utility-scale DER at the substation distribution bus. In power system terms, a "stiff" point on a power system offers a point at which the utility/DER interaction can be expected to be more stable, whereas undesired impacts related to voltage control, harmonics, and other items can arise where the power system presents a "weaker" connection.

This Circuit Stiffness Review is an indicator of the potential impacts that a proposed generating facility may have on the distribution system and nearby customers but which are typically difficult to otherwise study on distribution systems. Some of these are:

- (1) Susceptibility of local harmonic voltage creation, which is more common at weaker grid locations and can negatively impact surrounding customers.
- (2) Incompatibility of generator control systems/algorithms with common distribution system transient conditions, which can cause generator nuisance trips and associated complaints from nearby customers. Related to this are concerns with pole slipping for rotating machines, and general system stability concerns for all large generator interconnections when engaging in heavy reverse flow on a distribution circuit.
- (3) Problems with substantial reverse feed of voltage regulators (line regulator or substation regulators), since the common operating mode for reverse flow through a regulator (due to DER) assumes that there is always a "stiff" utility source in comparison with local DER.

The stiffness factor evaluation reveals whether or not a proposed generating facility individually represents too large a share of the total short circuit capability at the POI, and by inference, may have an excessive influence at that location, in reference to the factors above. A further calculation of the impact at the substation is also performed.

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<sup>1</sup> At this time, the Company is not proposing to evaluate interconnected generators or generators that have received a fully-executed interconnection agreement and have commenced construction under Section 5.3 of the Procedures. However, the Company reserves all of its rights under the North Carolina Interconnection Agreement, including its right to disconnect any generator that causes adverse operating effects to other customers on the Company's System.

NREL has suggested that stiffness factors below 50 (for intermittent sources like wind or PV) or below 25 (for steady state sources) define an area as “high penetration,” where there is “increased probability of serious issues.”<sup>2</sup> As noted above, Duke Energy has recently experienced various adverse operating impacts to distribution system power quality related to interconnection of larger DER generators. Duke Energy has determined that these experienced adverse operating effects generally occurred where the DER generating facility(s) are interconnected to the distribution system at a stiffness factor ratio below 25. Based on NREL’s classification and Duke Energy’s recent field experiences, Duke Energy has designed the circuit stiffness review to evaluate grid stiffness at the POI to assure that stiffness ratio is 25 or higher, regardless as to the type of proposed generating facility requesting to interconnect to the Duke Energy system. Duke Energy also evaluates the stiffness ratio at the distribution bus of the substation (again, using a value of 25 or greater) with all interconnected DER considered, in order to better capture the impacts at the substation bus which can impact all customers connected to that substation.

Based on the above, the stiffness factor evaluation provided in the table in the CSR report is a two stage evaluation: (1) stiffness factor at the POI, and (2) stiffness factor at the substation bus. The evaluation of each of the two is as follows:

- (1) Stiffness factor at the POI is shown in the CSR report table directly as “**Stiffness Factor at POI.**” A calculated value here of 25 or greater is a “pass” for the project for the POI-level evaluation.
- (2) Stiffness factor at the substation bus is calculated with all utility-scale DER connected to the feeders of the substation. This value is also evaluated against the criterion of 25. Because this evaluation is at the substation level, which considers more than one DER, a calculation is done to determine the maximum amount of MVA that corresponds to a stiffness factor of no less than 25.

In order to complete the substation level evaluation, the following two items must be summed together:

- a. “**Project Maximum Facility Rating (MVA)**”
- b. “**Existing Utility-Scale Projects on Substation (online and in the queue excluding this proposed project)**”

The project is considered a “pass” for the substation-level evaluation if the sum of the two items above does not exceed the “**Utility-Scale Project Capacity Limit for Substation (based on minimum stiffness factor of 25 at substation bus) (MVA)**”.

An project is considered as having “passed” the overall stiffness factor evaluation if BOTH stages above are evaluated as a “pass”.

<sup>2</sup> “Evaluating Future Standards and Codes with a Focus on High Penetration Photovoltaic (HPPV) System Deployment,” presented at the 4th International Conference on the Integration of Renewable and Distributed Energy Resources, 6-10 December 2010, Albuquerque, New Mexico.



[Memorandum of Understanding]

Memorandum of Understanding

Memorandum of Understanding (“MOU”) between Duke Energy Carolinas’ (“DEC”) and Duke Energy Progress’ (“DEP”) (together “Duke”) in support of Global Resolution of Notices of Dispute (“NODs”), as submitted by Strata Solar, LLC, FLS Energy, Inc. Cypress Creek Renewables, LLC, ESA Renewables, LLC, Pine Gate Energy Capital, LLC, Capital Dynamics, Inc. et al., and on behalf of certain of their respective affiliated companies (collectively the “Settling Developers,” individually “a Settling Developer”), and the North Carolina Clean Energy Business Alliance (“NCCEBA”)<sup>1</sup> (the Settling Developers, NCCEBA and Duke, collectively the “Settlement Parties”)

1. For Settlement Purposes Only. This MOU is agreed to between the Settlement Parties in effort to settle and resolve the NODs submitted by the Settling Developers without resort to formal complaint to the North Carolina Utilities Commission (the “Commission”).
2. Expedited Informal Technical Discussions with Settling Developers and Industry Informational Meeting(s). Duke is singularly responsible for designing and applying reasonable interconnection study criteria, in accordance with good utility practice, that facilitate the interconnection of generators to Duke’s electric system in a way that maintains system reliability and power quality to other customers. Duke appreciates the Settling Developers’ interest in understanding Duke’s Circuit Stiffness Review (“CSR”) study criteria; how CSR is being applied as a proxy screen; and the additional study process to be implemented for projects that fail CSR. Duke is also interested in input from Settling Developers’ regarding advanced study criteria that will allow Duke to most efficiently evaluate generator interconnection requests that fail CSR. To that end, Duke commits to participate in a series of informal technical discussions (“Technical Discussions”), to include the Public Staff, the Settling Developers and one technical representative from NCCEBA, for consideration and consensus-building with regard to power quality concerns, the CSR and related technical implications thereof, advanced study criteria to be applied during the impact study phase, and potential alternative approaches to addressing power quality concerns. The Settling Parties further agree as follows:
  - a. The initial Technical Discussion will be held not later than ten (10) business days following the execution of this MOU by the Settling Developers, and further Technical Discussions will be held regularly

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<sup>1</sup> NCCEBA joins in this MOU to the extent the provisions of this Memorandum are applicable to it, *i.e.*, Sections 4, 5 and 6 are not applicable to NCCEBA.

- thereafter, with the Parties to make good faith efforts to reach consensus within 45 days.
- b. Duke further commits to host one or more informal industry-wide informational meetings addressing the CSR Reports and additional study process within 30 days of Settlement.
  - c. Each Settling Developer and NCCEBA shall discuss with and encourage industry associations and other industry participants to forbear from the filing of any complaint or any similarly styled pleading at the Commission during the pendency of the Technical Discussions. NCCEBA will not file a complaint or any similarly styled pleading at the Commission during the pendency of the Technical Discussions.
  - d. Should a complaint be filed with the Commission by a Settling Developer, industry association or other industry participant relating to CSR, at any time, Duke will withdraw from additional informal Technical Discussions in anticipation of preparing its litigation defense.
  - e. The Settlement Parties further agree that all information and proposals shared during the Technical Discussions will be shared and considered in good faith and on a confidential basis, as informal settlement discussions that are not admissible in any future proceeding before the Commission.
  - f. The Settling Developers agree not to take any further action challenging CSR at the NCUC with respect to the projects for which an amended Interconnection Agreement ("IA") has been entered into and settlement hereunder is achieved.
3. Solar 2.0 Policy Discussions. As described in the July 22, 2016, Duke Proposal, DEC and DEP are seeing a growing body of evidence that utility-scale solar generators interconnected to the NC distribution system in rural areas can detrimentally impact normal distribution system operations and service quality to retail load customers. CSR shows that the probability of future detrimental power quality and system reliability impacts increase as more utility-scale generating capacity seeks to interconnect to DEC's and DEP's distribution system. North Carolina's existing policies, which have the effect of promoting distribution-connected utility-scale generating facility development, may have reached a point of conflict with DEC's and DEP's overarching obligation to ensure power quality and system reliability for customers. The Settlement Parties agree that a "Solar 2.0 policy" is needed to promote sustainable long-term solar energy deployment for the benefit of North Carolina and DEC's and DEP's customers. To that end, Duke commits to engage with the Settling Developers in good faith discussions in the next 60 days regarding potential policy recommendations to efficiently address the backlog of proposed utility-scale distribution-connected

interconnection requests in DEC's and DEP's interconnection queues and to facilitate prospective solar development policies that are compatible with Duke and the industry's desire for grid stability and reliability ("Solar 2.0 Discussions"). The Settlement Parties further agree that all information and proposals shared during the Solar 2.0 Discussions will be shared and considered in good faith and on a confidential basis, as informal settlement discussions that are not admissible in any future proceeding before the Commission.

4. Relief for Advanced Development Projects. Each Settling Developer will be provided the option offered by DEC and DEP, as set forth in that confidential communication dated July 22, 2016, to proceed with interconnection for projects that are in the advanced stages of development ("Advanced Development Projects") if the CSR Review is failed, subject to the terms and conditions identified in Section 5 below. Advanced Development Projects for purposes of this settlement is revised and expanded at the request of the Settling Developers to include the following categories of interconnection customers:

- a. Generator interconnection customers that have partially executed and returned a final IA to DEC/DEP, as described in NCIP § 5.2.2, on or before receipt of the July 7 CSR notification, and either have paid to DEC/DEP all applicable Upgrades/Facilities Charges or pay all such charges within ten (10) business following DEC/DEP providing interconnection customer an amended final IA incorporating the Exhibit A and Exhibit B revisions thereto.
- b. Generator interconnection customers that have executed and returned an Interim IA to DEC/DEP, as described in NCIP § 4.3.8, where the Interim IA has been executed by DEC/DEP and the interconnection customer has paid to DEC/DEP the Preliminary Estimated Upgrade Charge and Preliminary Estimated Facilities Charge (or acceptable financial security) determined through System Impact Study, as identified in NCIP § 4.3.4 or pays all such charges within ten (10) business following the Settlement Agreement effective date.
- c. Generator interconnection customers that have executed and returned an Interim IA to DEC/DEP, as described in NCIP § 4.3.8 as of July 7, 2016, where the interconnection customer has paid to DEC/DEP the Preliminary Estimated Upgrade Charge and Preliminary Estimated Facilities Charge (or acceptable financial security) determined through System Impact Study, as identified in NCIP § 4.3.4.
- d. Interconnection Customers meeting the foregoing definition and willing to settle will be specifically identified in, and signatories to, the settlement agreement.

5. Terms and conditions to be included in Advanced Development Projects' Final IAs for purposes of Settlement. Each Settling Developer accepts and agrees that the following terms and conditions shall be included in any Advanced Development Project final IA that is specifically identified in this Settlement Agreement.
  - a. Condition 1: Power quality monitoring equipment paid for by the interconnection customer shall be included in Appendix 2 as an addition to the interconnection facilities (to be owned and maintained by DEC or DEP).
  - b. Condition 2: Section 3.4.4 Adverse Operating Effects shall be amended to require Interconnection Customer to acknowledge and accept risk of immediate disconnection if future adverse power quality impacts relating to CSR and caused by the generating facility arise. See Exhibit A hereto for revisions to the Section 3.4.4 language included in the form IA, as approved by the Commission.<sup>2</sup>
  - c. Condition 3: Corresponding language shall be incorporated into Section 7.3.2 recognizing that the Interconnection Customer is obligated to indemnify DEC/DEP for damages under Section 3.4.4 or 3.4.1. See Exhibit B hereto for revisions to the Section 7.3.2 language included in the form IA, as approved by the Commission.
6. Timeline and additional conditions for proposed Settlement Agreement:
  - a. DEC/DEP agree to expeditiously produce CSR results and proceed to a Final IA for all Advanced Development Projects that have executed this MOU and are parties to the Settlement Agreement. Advanced Development Projects proceeding under an Interim IA (as provided for in 4.b. and 4.c. above) shall proceed through the Section 4.4 Facilities Study process and Section 5 Interconnection Agreement and Scheduling process, as applicable and as provided for by the NCIP. Duke further agrees to work in good faith to a) adhere to any informally-agreed upon construction milestone schedule for Projects where DEC or DEP has commenced construction of upgrades under an Interim IA; and b) recommence work that has already begun on the construction of upgrades

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<sup>2</sup> The NC Form IA, as approved May 15, 2015 by the Commission, contemplates that the utility and interconnection customer may amend the IA by mutual agreement without NCUC approval (IA § 12.2) or the utility may make a unilateral filing with the NCUC to modify the IA during the term of the Agreement (IA § 12.12).

necessary for interconnection of Settling Developers' projects prior to the execution of a final IA based upon Interconnection Customer's commitment to proceed with interconnection as an Advanced Development Project, as provided for herein.

- b. DEC/DEP and each Settling Developer agree to expeditiously and in good faith negotiate a mutually-acceptable settlement agreement, and the Parties commitment to the terms and conditions proposed herein is subject to negotiation and execution of such an Agreement. The settlement agreement shall be filed with the NCUC for informational purposes within 10 days of execution, however, such filing shall not delay implementation of the settlement.
- c. This settlement fully resolves all claims and disputes of a Settling Developer identified in the NOD submitted by it to DEC/DEP for which settlement is reached and releases Duke Energy/DEP/DEC from any further liability and/or damages relating to that NOD, whether asserted at the Commission or any other competent forum.

## CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Informational Filing, as filed in Docket No. E-100, Sub 101, were served electronically or via U.S. mail, first-class, postage prepaid, upon all parties of record.

This, the 29<sup>th</sup> day of August, 2016.

s/ Lawrence B. Somers

Lawrence B. Somers  
Deputy General Counsel  
Duke Energy Corporation  
NCRH 20

P.O. Box 1551  
Raleigh, NC 27602  
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*Attorney for Duke Energy Carolinas, LLC  
and Duke Energy Progress, LLC*