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March 1, 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 Carolinas, LLC's and Duke Energy Progress, LLC's  
Interconnection Fee-Related Work and Post-Commercial Operation  
Inspection Report  
Docket No. E-100, Sub 101**

Dear Ms. Campbell:

Please find enclosed Duke Energy Carolinas LLC's and Duke Energy Progress, LLC's Interconnection Fee-Related Work and Post-Commercial Operation Inspection Report in the above-referenced proceeding.

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

Sincerely,

Jack E. Jirak

Enclosure

cc: Parties of Record

**Interconnection Fee-Related Work and Post-Commercial Operation Inspection Report for  
Calendar Year 2020**

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

The North Carolina Utilities Commission’s (“Commission”) June 14, 2019 *Order Approving Revised Interconnection Standard and Requiring Reports and Testimony* in Docket No. E-100, Sub 101 (“2019 NCIP Order”) directed Duke Energy Progress, LLC (“DEP”) and Duke Energy Carolinas, LLC (“DEC”) and together with DEP, (“Duke” or the “Companies”) to submit annually a “verified report showing interconnection-related expenses and revenues associated with fee-related work for the prior year.” In addition, the Commission directed the Companies to report the “number of inspections conducted pursuant to new Sections 6.5.2, 6.5.3, and 6.5.4, an explanation of the related costs, and the revenues billed to and collected from the Interconnection Customers for these inspections.” This report is being filed to comply with the Commission’s reporting directive in Ordering Paragraph 3 of the 2019 NCIP Order.

**I. Interconnection Fee-Related Work**

As background, “fee-related work” refers to work related to Section 2 and Section 3 Interconnection Requests, as well as Pre-Application processing expenses, and time spent processing change of control documentation (including related technology costs). The currently effective fees that are intended to recover the costs associated with the fee-related work are as follows:

| <b>NCIP Section</b>   | <b>6/2019 Revised Fees</b> |
|---|----------------------------|
| Pre-Application Report:<br>§1.3.1<br><i>Fee</i>   | \$500                      |
| Interconnection Request Application Form: Attachment 2<br><i>Fast Track Process Fee</i><br><i>&gt;= 20 kW but &lt;= 100 kW</i>        | \$750                      |
| Interconnection Request Application Form: Attachment 2<br><i>Fast Track Process Fee</i><br><i>&gt;100 kW but &lt;= 2 MW</i>           | \$1,000                    |
| Interconnection Request Application Form for Interconnection:<br>Attachment 2<br><i>Transfer of Ownership/Control Fee &lt;= 20 kW</i> | \$50                       |
| Interconnection Request Application Form for Interconnection:<br>Attachment 2<br><i>Transfer of Ownership/Control Fee &gt; 20 kW</i>  | \$500                      |

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|   |       |
|---|-------|
| Interconnection Request Application Form for Interconnection of a Certified Inverter-Based Generating Facility No Larger than 20 kW:<br>Attachment 6<br><i>Processing Fee</i> | \$200 |
|---|-------|

The tables below compare expenses and revenues for fee-related work for calendar years 2017, 2018, 2019, and 2020. Each table utilizes the actual volumes of NC fee-related activities occurring in the applicable calendar year. For informational purposes, the Companies are providing for each calendar year two revenue amounts: (1) amount of revenues that would have been received based on the fees in effect prior to the 2019 NCIP Order and (2) the revenues based on the fees established by the 2019 NCIP Order. The currently effective fees approved in the 2019 NCIP Order were not fully implemented until mid-August 2019.

**NCIP Fees Over/(Under) Recovery Analysis 2017 – 2020**

|  | Column 1   |                           |                               | Column 2   |                           |                               | Column 3   |                           |                               | Column 4   |                           |                               |
|--|--|---------------------------|-------------------------------|--|---------------------------|-------------------------------|--|---------------------------|-------------------------------|--|---------------------------|-------------------------------|
|  | Actual 2017 Volumes & Expenses w/Previous & Revised Fees |                           |                               | Actual 2018 Volumes & Expenses w/Previous & Revised Fees |                           |                               | Actual 2019 Volumes & Expenses w/Previous & Revised Fees |                           |                               | Actual 2020 Volumes & Expenses w/Previous & Revised Fees |                           |                               |
|  | Volumes  | Revenue @ Pre-6/2019 Fees | Revenue @ 6/2019 Revised Fees | Volumes  | Revenue @ Pre-6/2019 Fees | Revenue @ 6/2019 Revised Fees | Volumes  | Revenue @ Pre-6/2019 Fees | Revenue @ 6/2019 Revised Fees | Volumes  | Revenue @ Pre-6/2019 Fees | Revenue @ 6/2019 Revised Fees |
| Pre-Applications   | 28   | \$8,400                   | \$14,000                      | 16   | \$4,800                   | \$8,000                       | 11   | \$3,300                   | \$5,500                       | 23   | \$6,900                   | \$11,500                      |
| ≤ 20 kW  | 1,406  | \$140,600                 | \$281,200                     | 4,354  | \$435,400                 | \$870,800                     | 5,719  | \$571,900                 | \$1,143,800                   | 6,584  | \$658,400                 | \$1,316,800                   |
| ≤ 100kW  | 34   | \$8,500                   | \$25,500                      | 172  | \$43,000                  | \$129,000                     | 94   | \$23,500                  | \$70,500                      | 100  | \$25,000                  | \$75,000                      |
| ≤ 2 MW   | 63   | \$31,500                  | \$63,000                      | 40   | \$20,000                  | \$40,000                      | 21   | \$10,500                  | \$21,000                      | 22   | \$11,000                  | \$22,000                      |
| Changes of Control:  |  |                           |                               |  |                           |                               |  |                           |                               |  |                           |                               |
| ≤ 20 kW  | 110  | \$5,500                   | \$5,500                       | 110  | \$5,500                   | \$5,500                       | 225  | \$11,250                  | \$11,250                      | 224  | \$11,200                  | \$11,200                      |
| > 20 kW  | 9  | \$450                     | \$4,500                       | 21   | \$1,050                   | \$10,500                      | 45   | \$2,250                   | \$22,500                      | 187  | \$9,350                   | \$93,500                      |
| Total Revenue Based on Volumes/Fees                                | 1,650  | \$194,950                 | \$393,700                     | 4,713  | \$509,750                 | \$1,063,800                   | 6,115  | \$622,700                 | \$1,274,550                   | 7,140  | \$721,850                 | \$1,530,000                   |
| Total Actual Revenue in Financials <sup>A</sup>                    |  | \$200,693                 |                               |  | \$470,459                 |                               |  | \$1,410,894               |                               |  | \$1,118,151               |                               |
| Employee & Contractor Expenses                                     |  | \$760,565                 |                               |  | \$924,608                 |                               |  | \$974,034                 |                               |  | \$1,059,849               |                               |
| PowerClerk   |  | \$148,000                 |                               |  | \$148,000                 |                               |  | \$146,800                 |                               |  | \$800                     |                               |
| Salesforce Allocation  |  | \$159,259                 |                               |  | \$151,850                 |                               |  | \$132,938                 |                               |  | \$256,118                 |                               |
| Total Actual/Estimated Expenses                                    |  | \$1,067,824               |                               |  | \$1,224,458               |                               |  | \$1,253,772               |                               |  | \$1,316,767               |                               |
| Net (Under)/Over-Recovery Based on Volumes/Fees                    |  | -\$872,874                | -\$674,124                    |  | -\$714,708                | -\$160,658                    |  | -\$631,072                | \$20,778                      |  | -\$594,917                | \$213,233                     |
| Actual Net (Under)/Over-Recovery Per Financial System <sup>A</sup> |  | -\$867,131                |                               |  | -\$754,000                |                               |  | \$157,122                 |                               |  | -\$198,616                |                               |

The Companies' 2020 actual experience under the NCIPs was a net under-recovery of \$198,616 for fee-related work.

The fee-related cost information presented above is not intended to recover the Companies' overhead administrative, processing and technology costs (e.g., costs for personnel that indirectly support the interconnection process including accounting, technical standards, account management, data management and reporting). Pursuant to the Commission's direction on page 18 of the 2019 NCIP Order, the Companies are attempting to separately recover such overhead cost incurred to support the

generator interconnection process through its schedule of administrative overhead costs, which is posted at: [https://www.duke-energy.com/\\_/media/pdfs/for-your-business/generate-your-own-renewable/administrative-actual-costs-table.pdf?la=en](https://www.duke-energy.com/_/media/pdfs/for-your-business/generate-your-own-renewable/administrative-actual-costs-table.pdf?la=en).<sup>1</sup>

## **II. Post-Commercial Operation Inspections to Ensure Safe and Reliable Interconnections**

After nearly a year’s worth of effort to develop an efficient process for the self-inspection of older, uninspected solar facilities, as provided for in NCIP Section 6.5, the Companies’ efforts have encountered a substantial roadblock. Specifically, on February 11, 2021, Carolinas Clean Energy Association (“CCEBA” formerly, NCCEBA) asserted a new legal position on behalf of CCEBA’s members that would effectively prohibit the inspection of all older, uninspected sites. This position is inconsistent with both the intent of the 2019 NCIP Order and the collaborative work with CCEBA and other stakeholders that had occurred to date on developing a process for inspection of older, uninspected sites to ensure the safe and reliable interconnection and parallel operations of generators with the Companies’ systems. The 2019 NCIP Order found that “[i]t is critical that the Utilities be in a position to ensure the safety and integrity of the grid, and the Commission supports the proposed periodic inspections.”<sup>2</sup> If CCEBA’s legal position remains unchanged then, absent further Commission directive, none of the older uninspected sites will be inspected and the Companies will be thwarted in their effort to implement the Commission’s directive to “ensure the safety and integrity of the grid” as it relates to inspection of older sites.

As background, the 2019 NCIP Order approved the addition of Sections 6.5.2, 6.5.3 and 6.5.4 to the NCIP. Such sections authorize the Companies to inspect the medium voltage AC side of both new and operating Generating Facilities and to invoice the applicable Interconnection Customer for the costs of the inspection. The inspection rights established in Section 6.5.2<sup>3</sup> specifically address Generating Facilities that were interconnected prior to the point in time at which the Companies implemented an inspection program and therefore “were not inspected prior to parallel operation” (such Generating Facilities, the “Uninspected Facilities”). There are approximately 300 utility-scale Uninspected Facilities interconnected to the Duke systems. All of the Uninspected Facilities had Interconnection Agreements dated prior to June 14, 2019.

As was described in the calendar year 2019 Interconnection Fee-Related Work and Post-Commercial Operation Inspection Report, Duke conducted a pilot inspection of five Uninspected Facilities in 2019 and reported the findings to the Commission. The pilot inspection identified a number of safety and reliability issues related to the quality of the medium voltage construction and the inverter

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<sup>1</sup> The Companies voluntarily committed in their May 15, 2020 Queue Reform Proposal, to provide information on annual administrative overhead costs to the Commission as part of their annual March 1 Fee-related work report. Due in part to a lag in cost recovery of overhead costs, the Companies are still compiling the required reporting materials and intend to promptly provide by separate document.

<sup>2</sup> *June 2019 NCIP Order*, at 21.

<sup>3</sup> NCIP 6.5.2 (“In the case of any Generating Facility that was not inspected prior to commencing parallel operation, the Utility shall be authorized to conduct an inspection of the medium voltage AC side of each Generating Facility (including assessing that the anti-islanding process is operational)”).

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settings. The findings from these inspections were also shared with the Technical Standards Review Group (“TSRG”).

In response to earlier concerns from CCEBA and other stakeholders concerning the cost of inspections (which costs are 100% direct-charged, pass-through costs from Advanced Energy), Duke temporarily postponed any further inspections of Uninspected Facilities in 2020 and instead, focused on substantial collaborative effort towards development of a flexible, efficient and possibly lower-cost approach to inspecting the remaining Uninspected Facilities. Specifically, the Companies are developing a separate pilot program under which Interconnection Customers would perform a “self-inspection” of the remaining Uninspected Facilities according to standards and guidelines established by the Companies. The self-inspection approach would enable the Companies to have inspections conducted on the hundreds of remaining Uninspected Facilities in a more timely manner and potentially at a lower-cost.<sup>4</sup>

The Companies have engaged in substantial dialogue with stakeholders through the TSRG concerning the parameters and requirements of the self-inspection pilot. The following is a brief overview of the timeline of engagement with stakeholders on the self-inspection pilot:

- January 2020 TSRG – Duke proactively presented the idea of a self-inspection program
- April 2020 – Duke presented a strawman self-inspection program for consideration, review and comment.
  - Duke worked with Interconnection Customers collaboratively on a mutually-agreed defined timeline to cover all previously uninspected sites.
  - Duke agreed that the applicable technical and construction standards/codes for self-inspection would be based on the Interconnection Customer’s in-service date.
- April 2020 through Present – Duke worked collaboratively with TSRG and offline with NCCEBA and SCSBA (now CCEBA) making the following updates:
  - Clearly defined different types of self-inspection with different scopes and reporting period.
  - Interconnection Customers are required to answer a list of self-certifying questions to be included in the annual self-inspection reporting requirement.
  - Agreed on a draft self-inspection program including an inspection reporting and review process.
  - Three uninspected sites are to be piloted by the end of April 2021.
  - Training on the self-inspection program was provided in February 2021.
  - Training is open to developers and vendors wanting to provide self-inspection services.

After having been directly engaged in a year plus collaborative engagement concerning a more efficient and potentially lower-cost self-inspection process for Uninspected Facilities, CCEBA has now asserted the position that Duke does not have the right to inspect Uninspected Facilities that fully-

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<sup>4</sup> As background, the cost of inspection are 100% direct-charged, pass-through costs for inspections performed by Advanced Energy. It is not clear yet whether the Interconnection Customers will be able to obtain such inspection services from other qualified entities at a lower cost than is provided by Advanced Energy.

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executed Interconnection Agreements prior to the 2019 NCIP's June 14, 2019 effective date (which, as described above, are all of the Uninspected Facilities). The basis for CCEBA's position is that Section 1.1.3 of the NC Procedures states that "[t]he 2019 revisions to this interconnection Standard shall not apply to Generating Facilities having a fully executed Interconnection Agreement as of the effective date of the 2019 revisions to this Standard, unless the Interconnection Customer proposes a Material Modification, transfers ownership of the Generating Facility, or application of the 2019 revisions to the Commission's interconnection standard are agreed to in writing by the Utility and the Interconnection Customer."<sup>5</sup> Because Sections 6.5.2, 6.5.3 and 6.5.4 were added to the NC Procedures by the 2019 NCIP Order, effective June 14, 2019, CCEBA argues on behalf of its members that these provisions should not apply to any of the Uninspected Facilities.

It is Duke's view that CCEBA's position is wholly inconsistent with the intent of the 2019 NCIP Order and renders Sections 6.5.2, 6.5.3 and 6.5.4 substantially ineffective for meeting the Commission's intended purpose of ensuring the safety and integrity of the grid. Section 6.5.2 is specifically targeted at facilities "not inspected prior to commencing parallel operation."<sup>6</sup> As was addressed in the 2019 NCIP Proceeding, Duke fully implemented an inspection program for all new generator Interconnection Customers commencing parallel operation in approximately March 2017. Therefore, the only projects for which Section 6.5.2 applies is, by definition, operating projects with Interconnection Agreements prior to June 14, 2019. CCEBA's interpretation would effectively nullify Section 6.5.2. CCEBA's interpretation would also substantially undercut the scope of Section 6.5.3 and 6.5.4, since there are 300+ operating utility-scale solar projects for which Duke would be prohibited from exercising ongoing inspection rights (or overseeing a self-inspection program) designed to ensure the safety and integrity of the grid.

Duke intends to continue to engage with CCEBA in the hope of expeditiously resolving the issue in a collaborative fashion. If no resolution is achieved, then Duke will likely need to petition the Commission for clarification of its June 2019 NCIP Order. For the time being, Duke will proceed with the self-inspection pilot project for the three projects that have volunteered but, once such pilots are completed, Duke will not be able to conduct any further inspections of Uninspected Facilities.

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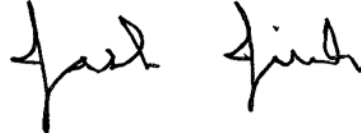
<sup>5</sup> Duke has not yet ascertained the number of currently operational generating facilities that had Interconnection Agreements prior to June 14, 2019 but then subsequently proposed a material modification or transferred ownership.

<sup>6</sup> See Direct Testimony of John W. Gajda, at 43 Docket No. E-100, Sub 101 (filed Nov. 29, 2018) (explaining that "[t]he Companies established this more robust inspection and commissioning process as a result of experienced power quality events that originated on particular Interconnection Customers' medium voltage facilities.")

**CERTIFICATE OF SERVICE**

I certify that a copy of Duke Energy Carolinas LLC's and Duke Energy Progress, LLC's Interconnection Fee-Related Work and Post-Commercial Operation Inspection Report, in Docket No. E-100, Sub 101, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid to parties of record.

This the 1<sup>st</sup> day of March, 2021.



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