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March 1, 2022

VIA ELECTRONIC FILING

Ms. A. Shonta Dunston
Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

**RE: Duke Energy Carolinas, LLC and Duke Energy Progress, LLC
Interconnection Fee-Related Work and Inspection Report
Docket No. E-100, Sub 101**

Dear Ms. Dunston:

Enclosed for filing in the above-referenced docket on behalf of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC is their Interconnection Fee-Related Work and Inspection Report.

Please feel free to contact me if you have any questions. Thank you for your assistance in this matter.

Sincerely,

Jack E. Jirak

Enclosure

cc: Parties of Record

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**Interconnection Fee-Related Work and Post-Commercial Operation Inspection Report for
Calendar Year 2021**

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 Energy” or the “Companies”) to submit annually a “verified report showing interconnection-related expenses and revenues associated with fee-related work for the prior year.” The Companies are also providing an initial report on allocated interconnection-related overhead and administration costs associated with the annual Cluster Study process, which the Companies committed to provide as part of this report in their May 15, 2020 Queue Reform Proposal filing.¹

In addition, the 2019 NCIP Order 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:

NCIP Section	Fees
Pre-Application Report: §1.3.1 <i>Fee</i>	\$500
Interconnection Request Application Form: Attachment 2 <i>Fast Track Process Fee</i> <i>>= 20 kW but <= 100 kW</i>	\$750
Interconnection Request Application Form: Attachment 2 <i>Fast Track Process Fee</i> <i>>100 kW but <= 2 MW</i>	\$1,000
Interconnection Request Application Form: Attachment 2 <i>Transfer of Ownership/Control Fee <= 20 kW</i>	\$50
Interconnection Request Application Form: Attachment 2 <i>Transfer of Ownership/Control Fee > 20 kW</i>	\$500
Interconnection Request Application Form for Interconnection of a Certified Inverter-Based Generating Facility No Larger than 20 kW: Attachment 6 <i>Processing Fee</i>	\$200

¹ Additional information in Section II has been added to meet the Companies’ voluntary commitment in the Queue Reform Proposal to report on allocated interconnection-related overhead and administrative costs associated with the annual Cluster Study process. See *Duke Queue Reform Proposal*, at 37-38, Docket No. E-100, Sub 101 (May 15, 2020).

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The tables below present the Companies' expenses and revenues for fee-related work for calendar years 2019, 2020, and 2021.² Each table utilizes the actual volumes of NC fee-related activities occurring in the applicable calendar year.³

NCIP Fees Over/(Under) Recovery Analysis 2019 – 2021

	Column 1		Column 2		Column 3	
	2019 Volumes & Expenses		2020 Volumes & Expenses		2021 Volumes & Expenses	
	Volumes	Revenue Fees	Volumes	Revenue Fees	Volumes	Revenue Fees
Pre-Applications	11	\$5,500	23	\$11,500	18	\$9,000
< 20 kW	5,719	\$1,143,800	6,584	\$1,316,800	8,434	\$1,686,800
< 100kW	94	\$70,500	100	\$75,000	131	\$98,250
< 2 MW	21	\$21,000	22	\$22,000	62	\$62,000
Change of Control or Ownership:						
< 20 kW	225	\$11,250	224	\$11,200	452	\$22,600
> 20 kW	45	\$22,500	187	\$93,500	25	\$12,500
Total Revenue Based on Volumes/Fees	6,115	\$1,274,550	7,140	\$1,530,000	9,122	\$1,891,150
Total Actual Revenue in Financials		\$1,410,894		\$1,118,151		\$1,758,324
Employee & Contractor Expenses		\$974,034		\$1,059,849		\$936,455
PowerClerk		\$146,800		\$800		\$0
Salesforce Allocation		\$132,938		\$256,118		\$207,470
Total Actual/Estimated Expenses		\$1,253,772		\$1,316,767		\$1,143,926
Net (Under)/Over-Recovery Based on Volumes/Fees		\$20,778		\$213,233		\$747,224
Actual Net (Under)/Over-Recovery Per Financial System		\$157,122		-\$198,616		\$614,398

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The Companies' 2021 actual experience under the fee-related provisions of the NCIP in 2021 was a net over-recovery of \$614,398 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 have separately recovered overhead costs incurred to support the generator interconnection process through its schedule of administrative overhead costs⁴ and is now assigning such costs to Transitional Cluster Study participants and future DISIS Cluster participants as discussed in Section II.

² Expenses and revenues for fee-related work for the 2017 and 2018 calendar years can be viewed in the Companies' Interconnection Fee-Related Work and Post-Commercial Operation Inspection Report for Calendar Year 2020.

³ The currently effective fees approved in the 2019 NCIP Order were implemented in August 2019.

⁴ This schedule can be viewed at the following link: https://www.duke-energy.com/_/media/pdfs/for-your-business/generate-your-own-renewable/administrative-actual-costs-table.pdf?la=en.

II. Queue Reform Interconnection-related Overhead and Administration Costs Update

In Duke Energy’s Queue Reform Proposal filed with the Commission on May 15, 2020, the Companies agreed to provide the Commission with an annual update of the interconnection-related overhead and administration costs that are being allocated amongst all Interconnection Customers as part of this annual interconnection report. 2021 was a year of unprecedented change for the Companies’ interconnection process administration as Duke Energy successfully implemented the queue reform efforts that involved the transition from a serial interconnection study process to a cluster interconnection study process. Throughout this transition, the Companies continued to incur interconnection-related overhead and administrative costs to facilitate a comprehensive set of actions required to successfully implement queue reform including but not limited to the following: transitional study enrollments, customer engagement meetings, phased studies, financial transaction support, and technology enhancements. Such costs will be included in the total study costs allocable amongst all Cluster Interconnection Customers in accordance with NCIP Section 4.4.3.

As part of the Companies’ ongoing and upcoming cluster study processes, interconnection-related overhead and administrative costs are tracked by activity-based cost pools. If multiple Clusters (e.g. Transitional Cluster, DISIS Cluster, RSC Cluster) are proceeding in parallel, each Cluster will be assigned to its own, separate interconnection-related overhead and administrative cost pool. The interconnection-related overhead and administrative costs are then allocated to the Interconnection Customers participating in a Cluster based on allocation methodology outlined in NCIP Section 4.4.3. An Interconnection Customer that withdraws from the Cluster Study Process at the end of a Study Phase will be allocated its share of the administrative costs incurred for that Study Phase. The Companies will issue financial assessment statements to participating Interconnection Customers for each completed phase of study. After Interconnection Customers complete the interconnection study process, the Companies still incur interconnection-related overhead and administrative costs for activities associated with Interconnection Agreement processing, construction, commissioning, inspection, and commercial operation, and the Companies will continue to exert reasonable efforts to recover costs from Interconnection Customers for interconnection-related overhead and administrative expenses incurred during these phases.

Interconnection Customers completing the Transitional Serial interconnection study process will not be burdened by the interconnection-related overhead and administrative costs allocated to Interconnection Customers participating in the ongoing Transitional Cluster Study and upcoming 2022 DISIS cluster study. The Companies will continue to apply the historical Fixed Overhead Rate Schedule used for Section 4 serial Interconnection Customers being studied in the Transitional Serial study process.⁵

III. Post-Commercial Operation Inspections to Ensure Safe and Reliable Interconnections

Since last year’s Interconnection Fee-Related Work and Post-Commercial Operation Inspections report (“2020 Interconnection Report”), the Companies have undertaken a substantial amount of impactful activities (e.g., robust stakeholder engagement in Technical Standards Review Group and

⁵ *Id.*

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Duke Energy Technology forums, responding to Commission Orders, and the Companies performance of interconnection-related Commission directives) related to the Companies' performance of Post-Commercial Operation Inspections. The Companies have also complied with a number of relevant Commission directives over the course of the current reporting year that satisfy the Commission's reporting directive in Ordering Paragraph 3 of the 2019 NCIP Order. While this activity did not result in any inspections pursuant to Sections 6.5.2, 6.5.3, and 6.5.4 during the 2021 reporting year, the Companies do anticipate that a number of such inspections may occur during the 2022 reporting year as a result of this activity. The Companies have prepared the following timeline of relevant activities occurring within the current reporting year related to the Companies' Post-Commercial Operation Inspections efforts:

- On October 8, 2021, the Commission issued an Order Clarifying Generator Interconnection Standards, Requesting Comments, and Requiring Filing of Remediation Information ("Clarifying Order"). The Clarifying Order clarified that Sections 6.5.2 and 6.5.3, and 6.5.4 of the NCIP apply to all Generating Facilities, regardless of the date of their Interconnection Agreement, including certain Facilities that were not inspected prior to commencing parallel operations ("Uninspected Facilities"). As part of the Clarifying Order, the Commission determined that the agreement between Duke Energy and Strata regarding a self-inspection program, as memorialized in a memorandum of agreement between them and filed with the Commission, was a reasonable start towards compliance with the requirements of the June 2019 Order and NCIP, and ordered all other Interconnection Customers with Uninspected Facilities to work with Duke Energy to develop similar self-inspection programs, memorialized in memoranda of agreement. The Order directed Duke Energy to (1) serve a copy of the Order on all owners of Uninspected Facilities as soon as reasonably possible and (2) file a report detailing the status of remediation efforts at generating facilities that had been inspected by Advanced Energy ("AE") Post-Commercial Operation from 2014 to present within 60 days of the date of the Order. The Clarifying Order also required (1) Interconnection Customers that own Uninspected Facilities to enter into self-inspection agreements with Duke Energy by no later than February 1, 2022, and (2) Duke Energy to file a report by February 23, 2022, detailing the status of self-inspection agreements with owners of Uninspected Facilities.
- On October 22, 2021, the Companies served a copy of the October 8, 2021 Order on all North Carolina Interconnection Customers that own or operate Uninspected Facilities.
- On December 7, 2021, Duke Energy filed a Response to Commission Request for Remediation Information ("Remediation Report"). In the Remediation Report, Duke Energy addressed the Companies' prior generator inspection efforts extending from 2014 to present for legacy uninspected facilities.
- On January 20, 2022, Duke Energy filed a Motion for Extension of Time to Enter Into Self-Inspection Agreements with Uninspected Facilities and File Status Report. In its filing, Duke Energy indicated that it had developed a template memorandum of agreement (the "Pro Forma MOA") providing Interconnection Customers that own or operate Uninspected Facilities with an option to self-administer inspection programs that comport with appropriate safety and reliability standards and meet the requirements of NCIP Sections 6.5.2 and 6.5.3, as directed by the Clarifying Order. Duke Energy stated that this Pro Forma MOA was developed after stakeholder feedback received in December 2021 and January 2022 from the Public Staff, CCEBA, and Strata Solar, LLC. Duke Energy provided the Pro Forma MOA in an attachment to its January 20, 2022 filing.

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- On January 27, 2022, the Commission issued an Order Placing Certain Compliance Deadlines In Abeyance. Specifically, the Order held the compliance deadlines in the Clarifying Order regarding the self-inspection agreements in abeyance, pending further order of the Commission.
- On February 11, 2022, the Commission issued an Order Granting Extension of Time to Enter Into Self-Inspection Agreements with Uninspected Facilities and File Status Report. Specifically, the Order determined that the Pro Forma MOA was a reasonable and appropriate effort by Duke Energy to comply with the NCIP and is appropriate as a mechanism for Duke Energy to assure adequate power quality and reliability for all Duke Energy customers. The Commission also revised relevant deadlines by ordering the following: (1) Duke Energy to distribute the Pro Forma MOA to the Interconnection Customers that own Uninspected Facilities by February 23, 2022, (2) Interconnection Customers to review and execute the Pro Forma MOA on or before April 26, 2022, and (3) Duke Energy to file a report detailing the status of self-inspection agreements with owners of Uninspected Facilities on or before May 26, 2022.
- On February 18, 2022, Duke Energy distributed the Pro Forma MOA to the Interconnection Customers that own Uninspected Facilities via e-mail along with a registration link for a Duke Energy hosted NC Uninspected Facilities MOA Informational Meeting scheduled for March 2, 2022.
- On February 22, 2022, Duke Energy distributed an updated version of the Pro Forma MOA to the Interconnection Customers that own Uninspected Facilities via e-mail. In this updated version of the Pro Forma MOA, Duke Energy revised the MOA execution deadline from February 1, 2022, as previously ordered by the North Carolina Utilities Commission, to April 26, 2022, as currently ordered by the North Carolina Utilities Commission.

Under the Pro Forma MOA, Interconnection Customers that own Uninspected Facilities can elect either to develop and implement a Self-Administered Compliance Program that is subject to Duke Energy’s approval and audit oversight or to submit to an inspection program that is administered by a Duke Energy-approved third party. The Companies intend to continue their efforts to ensure safe and reliable power system operations, including overseeing Generating Facility commissioning inspections as provided in the Pro Forma MOA as well as certain periodic post-commissioning inspections of interconnected Generating Facilities’ medium voltage equipment under NCIP Sections 6.5.2, 6.5.3, and 6.5.4.⁶

⁶ As background, the costs of inspection are 100% direct-charged, pass-through costs for inspections performed by Advanced Energy. The self-administered inspection program detailed in the Pro Forma MOA is intended to address long-term cost concerns raised by Interconnection Customers. Under the Pro Forma MOA’s self-administered inspection program, Interconnection Customers will be able to obtain inspection services from qualified entities other than Advanced Energy.

STATE OF NORTH CAROLINA)
)
COUNTY OF WAKE)

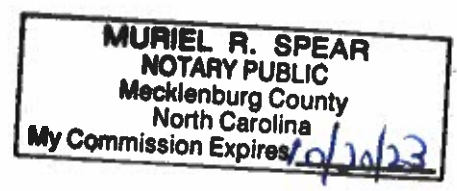
DOCKET NO. E-100, SUB 101

I, Cassandra M. Brooks, Manager of Renewable Energy Business Controls, for Duke Energy Corporation do solemnly swear that the facts stated in the foregoing *Interconnection Fee-Related Work and Post-Commercial Operation Inspection Report*, insofar as they relate to Duke Energy Carolinas, LLC and Duke Energy Progress, LLC, are true and correct to the best of my knowledge and belief.

Cassandra Brooks
Cassandra M. Brooks

The foregoing instrument was sworn to and acknowledged before me this 1 day of March, 2022.

Muriel R. Spear
Notary Public



My Commission Expires: Oct 20, 2023