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March 1, 2023

VIA ELECTRONIC FILING

Ms. Shonta A. Dunston
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.

If you have any questions, please let me know.

Sincerely,


Jason A. Higginbotham

Enclosure

cc: Parties of Record

Interconnection Fee-Related Work and Post Commercial Operation Inspection
Report for Calendar Year 2022

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 updated 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	\$500

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).

<i>Transfer of Ownership/Control Fee > 20 kW</i>	
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

The tables below present the Companies' expenses and revenues for fee-related work for calendar years 2020, 2021 and 2022². Each table utilizes the actual volumes of NC fee-related activities occurring in the applicable calendar year.

NCIP Fees Over/(Under) Recovery Analysis 2020 – 2022

	Column 1		Column 2		Column 3	
	2020 Volumes & Expenses		2021 Volumes & Expenses		2022 Volumes & Expenses	
	Volumes	Revenue Fees	Volumes	Revenue Fees	Volumes	Revenue Fees
Pre-Applications	23	\$11,500	18	\$9,000	43	\$21,500
< 20 kW	6,584	\$1,316,800	8,434	\$1,686,800	11,479	\$2,295,800
< 100kW	100	\$75,000	131	\$98,250	273	\$204,750
< 2 MW	22	\$22,000	62	\$62,000	50	\$50,000
Change of Control or Ownership:						
≤ 20 kW	224	\$11,200	452	\$22,600	593	\$29,650
> 20 kW	187	\$93,500	25	\$12,500	44	\$22,000
Total Revenue Based on Volumes/Fees	7,140	\$1,530,000	9,122	\$1,891,150	12,482	\$2,623,700
Total Actual Revenue in Financials		\$1,118,151		\$1,758,324		\$2,508,950
Employee & Contractor Expenses		\$1,059,849		\$936,455		\$1,489,951
PowerClerk		\$800		\$0		\$0
Salesforce Allocation		\$256,118		\$207,470		\$124,163
Total Actual/Estimated Expenses		\$1,316,767		\$1,143,926		\$1,614,114
Net (Under)/Over-Recovery Based on Volumes/Fees		\$213,233		\$747,224		\$1,009,586
Actual Net (Under)/Over-Recovery Per Financial System		-\$198,616		\$614,398		\$894,836

The Companies' 2022 actual experience under the fee-related provisions of the NCIP in 2022 was a net over-recovery of \$894,836 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

² Expenses and revenues for fee-related work for the 2018, 2019 calendar years can viewed in the Companies' Interconnection Fee-Related Work and Post-Commercial Operation Inspection Report for Calendar Year 2021.

schedule of administrative overhead costs³ and is now assigning such costs to Transitional Cluster and DISIS Cluster participants as discussed in Section II.

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.

As part of the Companies' ongoing 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, etc.) 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. The process to identify and allocate overhead costs was formalized in 2022 and the below table illustrates 2022 direct study and overhead costs allocated amongst all Cluster Interconnection Customers in accordance with NCIP Section 4.4.3.

Direct Study and Overhead Costs for Active Clusters in Reporting Year

System Level Clusters	2022 Cluster Study Costs*		
	Direct Study	Overhead	Total 2022 Costs
Transition Cluster	\$480,496	\$139,814	\$620,310
CPRE 3	\$33,151	\$13,604	\$46,755
2022 DISIS	\$333,293	\$379,219**	\$712,512
Total	\$846,939	\$532,637	\$1,379,576

* - Fully recovered from Interconnection Customer through cluster process

** - Includes SalesForce implementation costs

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 issued financial assessment statements to participating Interconnection Customers for each completed phase of study informing their allocated share of the study costs and issued Final Accounting Reports to the withdrawn Interconnection Customers.

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

³ This schedule can be viewed at the following link: https://www.duke-energy.com/_/media/pdfs/for-yourbusiness/generate-your-own-renewable/administrative-actual-costs-table.pdf?la=en

exert reasonable efforts to recover costs from Interconnection Customers for interconnection-related overhead and administrative expenses incurred during these phases. During 2022, no Cluster Interconnection Customers incurred these costs.

Interconnection Customers completing Transitional Serial interconnection study process will not be burdened by the interconnection-related overhead and administrative costs allocated to Interconnection Customers participating in the multiple ongoing Clusters. Overhead and administrative costs are also allocated to other non-cluster Interconnection activities, such as supplemental studies, construction, post operations, and final accounting reports. The Companies continue to apply the historical schedule of administrative overhead used for Section 4 serial Interconnection Customers being studied in the Transitional Serial study process.⁴

The table below presents the Companies interconnection overhead costs incurred by non-cluster activities in 2022 and the amounts recovered from the schedule of administrative overhead costs.

2022 Non-Cluster Interconnection Overhead Costs Incurred

Non-Cluster Interconnection Overhead	Total 2022 Amounts*
Serial Study and Supplemental	\$510,128
Serial Construction	\$1,001,354
Post Operations and Final Accounting Reports	\$147,377
Fixed Overhead Fee Charges**	-\$212,000
(Over)/Under Recovery	\$1,446,858

* - Fixed administrative fees based on project milestones for both North Carolina and South Carolina projects

** - \$38,000 of admin fees are charged to projects with completed Interconnection Agreements. No overheads are recovered for Interconnection projects in construction.

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

Since last year’s Interconnection Fee-Related Work and Post-Commercial Operation Inspection report (“2021 Interconnection Report”), the Companies continued to undertake impactful activities (e.g., stakeholder engagement in Technical Standards Review Group, responding to Commission Orders, and performance of interconnection-related Commission directives) related to the Companies’ performance of Post-Commercial Operations Inspections, as provided for under Section 6.5 of the NCIP. The Companies have complied with a number of relevant Commission directives over the course of the current reporting year that satisfy the Commission’s reporting directives. While these activities have only resulted in limited inspections pursuant to Sections 6.5.2,

⁴ *Id.*

6.5.3, and 6.5.4 in the 2022 reporting year, the Companies do anticipate that a significant number of such inspections will occur during the 2023 reporting year as a result of those activities. 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 March 2, 2022, Duke Energy hosted an informational meeting with Interconnection Customers that own NC Uninspected Facilities to provide information about the Pro Forma MOA previously distributed and relevant documents on the TSRG Website and to address questions about the Pro Forma MOA and related inspection processes. The Companies distributed the meeting presentation and additional Q&A responses to Interconnection Customers that own Uninspected Facilities via e-mail on March 4, 2022.
- Between March and April of 2022, Duke Energy engaged Interconnection Customers that own NC Uninspected Facilities both individually and collectively, providing MOA execution deadlines reminders and providing NC Uninspected Facilities listings of individual Interconnection Customers. The Companies also provided Interconnection Customers that own NC Uninspected Facilities with Duke Energy's estimated costs associated with implementing the compliance inspection program options available under the MOA; namely the Duke Energy-Approved Third Party Administered Inspection Option and the Self-Administered Compliance Option.
- On May 26, 2022, Duke Energy filed a report detailing the status of self-inspection agreements with owners of Uninspected Facilities as Ordered by the Commission's February 11, 2022 Order Granting Extension of Time to Enter Into Self-Inspection Agreements with Uninspected Facilities and File Status Report. The report mentioned that a total of 298 Uninspected Facilities provided signed MOAs (296 selected the self-inspection option and 2 selected the Duke Energy- Approved Third Party Administered Inspection Program Option) and that 26 Uninspected Facilities did not provide signed MOAs. Of the 26 Uninspected Facilities not providing signed MOAs by the April deadline, 6 Uninspected Facilities have since executed MOAs with the Companies. NC Uninspected Facilities failing to execute agreements with the Companies are deemed to have selected of the Duke Energy-Approved Third Party Administered Inspection Program Option by default.
- On May 26, 2022, Duke Energy also filed a response to the Commission's Order directing the Companies to describe plans for complying with NCIP subsection 6.5.3 (periodic inspections not subject to the Uninspected Facility Pro Forma MOA). The Companies' response mentioned that "Duke Energy will build upon the efforts that went into developing the periodic inspection requirements detailed in Section 6 of the Pro Forma MOA, which requires periodic inspection every five (5) years". The Companies' future plans regarding periodic inspections were also shared with Interconnection Customers at the July 20, 2022 TSRG meeting, including the Companies' plans to continue working with stakeholders to develop formal processes and criteria in support of performing NCIP Section 6.5.3 inspections.

- Between June and August of 2022, Duke Energy processed in-scope MOAs and provided Interconnection Customers with executed MOA copies of NC Uninspected Facilities.
- Since August of 2022, NC Uninspected Facilities that elected the Self-Administered Compliance Program Option have provided copies of their Self-Administered Compliance Program documentations for review by the Companies. The Companies are still awaiting several NC Uninspected Facilities' compliance documentations for review, though the MOA agreements require Interconnection Customers to furnish the Companies with these documents within 90 calendar days of the MOA execution.
- Over the next three years, NC Uninspected Facilities are expected to complete initial compliance inspections as required (within 18-months of the MOA execution date if commercial operation was attained on or before August 31, 2015, or within three-years of the MOA execution date if commercial operation was attained after August 31, 2015). Thus far, the Companies have received inspection reports for two previously NC Uninspected Facilities and the Companies are working with the Interconnection Customer to resolve identified corrections. The Companies are also finalizing Self-Inspection instruction guides and process documents, including the necessary reports, to be distributed to Interconnection Customers that own NC Uninspected Facilities.

STATE OF NORTH CAROLINA)
)
)
COUNTY OF MECKLENBURG)

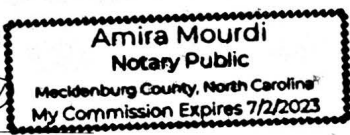
DOCKET NO. E-100, SUB 101

I, Cassandra M. Brooks, Manager of Renewable Energy Business Controls for Duke Energy Corporation do solemnly swear that the facts stated in Sections I and II of 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 knowledges and belief.

Cassandra Brooks
Cassandra M. Brooks

The foregoing instrument was sworn to and acknowledged before me this 1st day of March 2023.

Amira Mourdi
Notary Public



My Commission Expires: July 2, 2023

STATE OF FLORIDA)
)
)
COUNTY OF SEMINOLE)

DOCKET NO. E-100, SUB 101

I, Saurabh Vyas, Director of Transmission Integration Strategy for Duke Energy Corporation do solemnly swear that the facts stated in Section III of 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 knowledges and belief.

Saurabh
Saurabh Vyas

The foregoing instrument was sworn to and acknowledged before me this 7 day of March 2023

Jacari Brantley
Notary Public

My Commission Expires: 8/4/25



CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC Inspection Fee-Related Work and 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, 1st Class Postage Prepaid, properly addressed to parties of record.

This the 1st day of March, 2023.



Jason A. Higginbotham
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