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July 13, 2020

Ms. Kimberley A. Campbell, Chief Clerk
North Carolina Utilities Commission
430 N. Salisbury Street
Raleigh, NC 27603

***RE: Biennial Determination of Avoided Cost Rates for Electric Utility Purchases from Qualifying Facilities – 2018
Initial Comments of North Carolina Clean Energy Business Alliance and North Carolina Sustainable Energy Association in Regard to Duke’s Proposed Requirements for Avoidance of SISC
NCUC Docket No. E-100, Sub 158***

Dear Ms. Campbell:

On behalf of North Carolina Clean Energy Business Alliance and North Carolina Sustainable Energy Association, we submit the attached **Initial Comments of North Carolina Clean Energy Business Alliance and North Carolina Sustainable Energy Association in Regard to Duke’s Proposed Requirements for Avoidance of SISC** in the above-referenced docket.

Should you have any questions concerning this filing, please do not hesitate to contact me.

Sincerely,

/s/ Karen M. Kemerait

Karen M. Kemerait

Skb

cc: All parties of record
Enclosure

A Pennsylvania Limited Liability Partnership

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Jul 13 2020

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-100, SUB 158

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION:

In the Matter of:
Biennial Determination of Avoided Cost
Rates for Electric Utility Purchases from
Qualifying Facilities – 2018

**INITIAL COMMENTS OF NORTH
CAROLINA CLEAN ENERGY
BUSINESS ALLIANCE AND
NORTH CAROLINA
SUSTAINABLE ENERGY
ASSOCIATION IN REGARD TO
DUKE'S PROPOSED
REQUIREMENTS FOR
AVOIDANCE OF SISC**

Pursuant to the North Carolina Utilities Commission's ("Commission") *Order Requesting Comments on Proposed Requirements for Avoidance of SISC and Order Granting Extension of Time for Filing Initial and Reply Comments* in the above-referenced docket, the North Carolina Clean Energy Business Alliance ("NCCEBA") and the North Carolina Sustainable Energy Association ("NCSEA") respectfully submit the following initial comments in response to Duke Energy Progress, LLC ("DEP") and Duke Energy Carolinas, LLC's ("DEC") (collectively, "Duke") proposed Requirements for Avoidance of the Solar Integration Services Charge ("SISC").

In the Commission's *Supplemental Notice of Decision* issued in this docket on October 17, 2019, the Commission concluded that Duke should not be authorized to impose the SISC on a solar qualifying facility ("QF") that is a "controlled solar generator". The Commission described a "controlled solar generator" as any solar QF that demonstrates that its facility is capable of operating, and contractually agrees to

operate, in a manner that materially reduces or eliminates the need for additional ancillary service requirements incurred by the utility. The Commission directed Duke to file proposed guidelines for QFs to become controlled solar generators and thereby avoid the SISC.

I. DUKE’S PROPOSED REQUIREMENTS FOR AVOIDANCE OF THE SISC

Duke filed proposed Requirements for Avoidance of the SISC on November 18, 2019. Duke’s proposed requirements include a process for calculating the SISC reduction and a solar site volatility metric.

A. Process for calculating SISC reduction

According to Duke’s proposal, if a QF intends to utilize an Energy Storage device to reduce solar volatility and request reduction of the SISC, the QF shall be required to collect five-minute solar output data for the Facility, for purposes of calculating the solar site net output volatility metric (“Solar Volatility Metric”), using its Facility Plant Controller or other means proposed by the QF and reasonably accepted by Duke. Duke will provide an Excel template with the calculations (see calculation description under "Solar Site Volatility Metric" below) allowing the QF to enter the five-minute solar output from the QF’s metering facilities. In addition, in order to qualify for the SISC exemption or reduction, a revenue quality meter capable of recording five-minute usage data (“SISC Meter”) must be installed at the solar generating facility (“Facility”) by Duke at the QF’s expense. The SISC Meter will be owned by Duke, but will be paid for by the QF under the Extra Facilities Plan for Interconnection Facilities.

Duke proposes that the amount of the SISC reduction is based on the following Solar Volatility Metric:

- Volatility greater than 12% -- no reduction in the SISC.
- Volatility less than or equal to 12% -- partial reduction of 50% in the SISC.
- Volatility less than or equal to 6% -- full (100%) reduction in the SISC.

The QF is required to attest to Duke on a monthly basis the degree to which the QF has reduced monthly solar volatility. If the QF does not deliver the attestation to Duke on time, Duke will consider the QF in non-compliance with the Solar Volatility Metric and the QF will be charged the full SISC on Duke's monthly invoice.

B. Solar Volatility Metric

Duke states that the Solar Volatility Metric should be calculated as the average of the Facility's volatility computed for each daylight hour divided by the average of the Facility's generation over each daylight hour and month. Duke submits that the Solar Volatility Metric is designed to capture the volatility caused by the Facility's generation output fluctuating from one time step to the next beyond what is expected for each daylight hour in each month. The Solar Volatility Metric calculates ten-minute changes in the Facility's net alternating current (AC) generation at five-minute intervals that are scored as a ratio of the average daylight volatility to the average daylight power output.

Put succinctly, Duke's proposal would require the QF to (1) effectively buy two SISC meters capable of recording five-minute solar output data for the Facility (one owned by the QF and one owned by Duke); (2) collect five-minute output data for the Facility; (3) input the Solar Volatility Metric calculations in an Excel spreadsheet

template and then calculate the monthly solar volatility; and (4) attest on a monthly basis to the degree to which the QF has reduced solar volatility.

II. NCCEBA AND NCSEA'S RECOMMENDATIONS

NCCEBA and NCSEA believe that several aspects of Duke's proposed requirements lack transparency, are unnecessarily burdensome, and can be improved.

First, Duke's Solar Volatility Metric lacks transparency in regard to the methodology that Duke utilized to determine the 6 percent and 12 percent setpoints. As such, NCCEBA and NCSEA request that Duke be required to file in this docket its methodology for determining the 6 percent and 12 percent setpoints, and also provide information about how the requirements solve issues noted in the Astrape Solar Ancillary Services Study developed by Astrape Consulting and filed in this docket. NCCEBA and NCSEA also request that Duke be required to recalculate the Solar Volatility Metric every two years, and file an updated Solar Volatility Metric on a biennial basis. It is important that Duke recalculate the Solar Volatility Metric on a regular basis, as Duke might determine that different setpoints (than the 6 percent and 12 percent setpoints) will be effective in reducing or eliminate Duke's need for ancillary services. As Duke gains experience with the reduction of solar volatility on the need for ancillary services, Duke might learn that solar volatility greater than the 6 percent and 12 percent setpoints will be effective in reducing the need for ancillary services.

NCCEBA and NCSEA also believe that it is unnecessarily burdensome for Duke to require the QF to perform SISC metering on its own in addition to paying for a separate revenue quality SISC Meter to be owned by Duke. Rather than requiring the QF to perform SISC metering on its own and also pay for a separate SISC Meter, Duke

should replace the Facility's current revenue meter with a meter that is capable of both revenue service and recording the five-minute output of the Energy Storage device. Furthermore, Duke should be able to capture the five-minute solar output data and calculate the monthly solar volatility without the QF being required to input the solar volatility metric calculations on an Excel spreadsheet and attest to the monthly solar volatility reduction. NCCEBA and NCSEA believe that requiring QFs and Duke to trade Excel spreadsheets would be unnecessarily labor-intensive for both Duke and QFs and an extremely error-prone process. Rather than this error-prone process, SISC accounting and billing lends itself much better to automation within Duke's systems, consistent with current metering, accounting, and billing processes.

Duke should utilize the data that it collects for the Facilities to prepare an analysis about solar variability in the DEP and DEC territories and in different segments of its transmission system. Duke should file this information with the Commission when it files the recalculated Solar Volatility Metric with the Commission.

III. CONCLUSION

NCCEBA and NCSEA appreciate the opportunity to provide comments about how Duke's proposed Requirements for Avoidance of the SISC can be improved. Specifically, NCCEBA and NCSEA request that (1) Duke file its methodology for determining the 6 percent and 12 percent setpoints for the Solar Volatility Metric in this docket, (2) Duke recalculate and file an updated Solar Volatility Metric every two years, (3) Duke should be required to replace the Facility's current revenue meter with a meter that is capable of both revenue service and recording the output of the Energy Storage device, and (4) Duke, rather than the QF, should be required to perform the monthly solar volatility calculations.

Respectfully submitted this 13th day July, 2020.

FOX ROTHSCHILD LLP

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CERTIFICATE OF SERVICE

I hereby certify that a true and exact copy of the foregoing COMMENTS OF NORTH CAROLINA CLEAN ENERGY BUSINESS ALLIANCE AND NORTH CAROLINA SUSTAINABLE ENERGY ASSOCIATION have been duly served upon counsel of record for all parties to this docket by either depositing a true and exact copy of same in a depository of the United States Postal Service, first-class postage prepaid, and/or by electronic delivery as follows:

This 13th day of July, 2020.

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