

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)	INITIAL COMMENTS OF THE
Rates for Electric Utility Purchases from)	PUBLIC STAFF ON
Qualifying Facilities – 2018)	PROPOSED REQUIREMENTS
)	FOR AVOIDANCE OF SISC

NOW COMES THE PUBLIC STAFF – North Carolina Utilities Commission, by and through its Executive Director, Christopher J. Ayers, and respectfully submits the following initial comments on the proposed Requirements for Avoidance of the Solar Integration Services Charge (SISC), filed by Duke Energy Carolinas, LLC (DEC) and Duke Energy Progress, LLC (DEP) (collectively, “Duke”) on November 18, 2019.

On October 17, 2019, the Commission issued a Supplemental Notice of Decision, concluding that the SISC, as calculated in the “Astrapé Study”,¹ was reasonable for use. While authorizing DEC and DEP to include the SISC as a decrement to its avoided energy rates for solar qualifying facilities (QFs), the Commission also concluded that it is

inappropriate for DEC or DEP to impose the integration services charge on QFs that qualify as “controlled solar generators” by demonstrating that their facility is capable of operating, and by contractually agreeing to operate, in a manner that materially reduces or eliminates the need for

¹ The “Astrapé Study” refers to the Solar Ancillary Service Study conducted by Astrapé Consulting on behalf of DEC and DEP. Testimony of Nick Wintermantel, Exhibit 2, filed on May 21, 2019.

additional load following reserves required to integrate solar QF capacity.²

The Commission therefore directed DEC and DEP to file proposed guidelines for QFs to become “controlled solar generators” and thereby avoid the SISC.

On November 18, 2019, DEC and DEP filed joint Requirements for Avoidance of SISC, laying out a process by which solar QFs could avoid the SISC charge. To do so, the QF must first notify and provide supporting information demonstrating that the QF is capable of reducing its volatility. Next, each month, the QF must collect 5-minute solar net AC generation data and input it into a template which will calculate the Solar Site Volatility Metric (Metric). Based upon the Solar Site Volatility Metric achieved by the QF, the SISC can be reduced, according to the following thresholds:

- Solar Site Volatility Metric of greater than 12% shall receive no SISC reduction.
- Solar Site Volatility Metric of less than or equal to 12% and greater than 6% will receive a 50% reduction in the SISC.
- Solar Site Volatility Metric of less than or equal to 6% will receive a full waiver of the SISC.

The QF then must self-report its Solar Site Volatility Metric each month to the appropriate utility, at which point the utility will apply the reduction according to

² Final Order, Finding of Fact 38.

the thresholds above. DEC and DEP also state that they will install a revenue quality meter capable of recording 5-minute data (SISC Meter), at the QF's expense, to allow for audits of the self-reported Solar Site Volatility Metric.

The Public Staff has reviewed this process with Duke personnel, and believes that the proposed process and the Solar Site Volatility Metric is generally reasonable. However, we have identified several issues that we believe merit attention, and potentially future changes to this process.

First, the Public Staff has some concerns that the proposed self-reporting of the Solar Site Volatility Metric by the QF creates opportunities for erroneous data to be reported to DEC and DEP, either intentionally or accidentally. Because any waiver of the SISC is dependent upon the Metric, it is possible for QFs to either pay a SISC they were not obligated to, or receive an SISC waiver to which they are not entitled. While DEC and DEP have the capability to perform audits on these facilities and correct any payment errors,³ it remains to be seen how often facilities will be audited, particularly if there is a high percentage of solar QFs who seek to avoid the SISC. On an individual project basis, the financial impacts to ratepayers would be minimal; however, should a significant number of solar QFs subject to the SISC seek waivers, the overall monthly impacts could be substantial. For example, if 400 MW of solar QFs were to have their SISC completely waived, it would result in additional payments to QFs of approximately \$140,000 per month in DEP.⁴ Assuming these facilities are properly reducing their volatility, these

³ See Requirements for Avoidance of SISC, at 1.

⁴ Assuming a 20% capacity factor. This figure would be approximately \$65,000 in DEC.

payments should be approximately offset, however, by commensurate reductions in the amount of operating reserves held and fuel consumed by the utility.

The Public Staff notes that due to the installation of the SISC Meter, DEC and DEP will have the ability to automatically calculate the Solar Site Volatility Metric with no input from the developer; however, during discussions with Duke, it is clear that the utility sees value in working with the QF to calculate and report this data in the manner proposed. Specifically, Duke stated that the self-reporting feature of this process will improve transparency, help QFs understand how their Solar Site Volatility Metric is calculated, how they can operate their facility to reduce their volatility, and build trust between the utility and the QF community. The Public Staff believes these are commendable goals and is willing to accept the self-reporting mechanism at this time.

However, should Duke or the Public Staff discover significant or recurring discrepancies between QF reported data and utility-collected data, the Public Staff recommends that the Commission be notified and that the utility switch from the self-reporting mechanism to internal calculation of the Solar Site Volatility Metric from the SISC Meter. As any SISC charges or credits would flow to ratepayers via the fuel rider, the Public Staff will evaluate whether the Metric is being implemented appropriately to ensure ratepayers are not bearing any increased ancillary service costs that the Solar Site Volatility Metric is intended to offset.⁵

⁵ The Public Staff notes that in DEP's 2020 fuel clause adjustment proceeding (Docket No. E-2, Sub 1250), there are approximately 47 solar facilities currently selling power to DEP under the Sub 158 tariff, and are therefore subject to the SISC.

The SISC avoidance thresholds described above were estimated based on Duke's analysis of existing solar facilities as well as "blue-sky" solar output profiles⁶ obtained from solar output models. The Public Staff believes it is important that only facilities that actually reduce their volatility to a level at which little to no load-following reserves are necessary should receive a SISC waiver. While it is impossible to know whether these thresholds accurately meet this definition, the Public Staff believes that DEC and DEP made a reasonable attempt at designing the thresholds in a way that will protect ratepayers and agrees that the proposed thresholds are appropriate at this time. Should the utilities find that a significant number of solar QFs are avoiding the SISC without meaningfully reducing their volatility, DEC and DEP should notify the Commission and propose revised SISC thresholds to address the issue.

Finally, the Public Staff requests that in future fuel rider proceedings, DEC and DEP specifically address the SISC avoidance process in their pre-filed direct testimony, identify the specific facility(ies) and amount of SISC avoided in supporting exhibits and work papers, and report on any audits performed on QFs seeking to avoid the SISC.

In conclusion, the Public Staff supports DEC's and DEP's proposed Requirements for Avoidance of SISC. However, the Public Staff will continue to monitor the self-reporting process as well as the SISC avoidance thresholds to

⁶ A "blue sky" profile is an output profile without any cloud cover, which represents an output profile with little to no volatility. This type of ideal profile was used to calibrate the Solar Site Volatility Metric.

ensure that ratepayers are adequately protected from increased ancillary service costs that may result from intermittent solar QFs.

Respectfully submitted this the 10th day of July, 2020.

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CERTIFICATE OF SERVICE

I certify that a copy of these Comments have been served on all parties of record or their attorneys, or both, by United States mail, first class or better; by hand delivery; or by means of facsimile or electronic delivery upon agreement of the receiving party.

This the 10th day of July, 2020.

Electronically submitted
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