

**BEFORE THE NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-100, SUB 194**

)	
In the Matter of:)	
Biennial Determination of Avoided Cost)	REPLY COMMENTS
Rates for Electric Utility Purchases from)	OF NCSEA
Qualifying Facilities — 2023)	
)	

NOW COMES the North Carolina Sustainable Energy Association (“NCSEA”),¹ pursuant to the Commission’s August 7, 2023, *Order Establishing Biennial Proceeding, Requiring Data, and Scheduling Public Hearing*, and the Commission’s February 6, 2024, *Order Granting Extension of Time to File Comments*, and offers the following reply comments in response to the various initial comments made by the parties in this docket.

I. COMMENTS

A. Comments Addressing the Predetermined Energy Storage System Retrofit Rates.

In the Joint Initial Statement, the Companies proposed to allow the ESS Retrofit avoided cost rates approved in the 2021 Sub 175 proceeding to expire and discontinue offering predetermined ESS Retrofit avoided cost rates due to the lack of project applications or Notice of Commitment Forms. In response to the Companies’ proposal, the Public Staff agreed to discontinue the predetermined rates “due to *the lack of interest by QFs* and the adoption of cluster studies under queue reform.”² NCSEA, in its initial comments, preempted such conclusory statements by 1) outlining stated concerns with the

¹ Terms and abbreviations herein will have the same meaning as defined in the *Initial Comments of NCSEA*.

² *Initial Statement of the Public Staff*, Commission Dkt. No. E-100, Sub 194, 12 (Feb. 21, 2024) (emphasis added) [hereinafter “*Public Staff comments*”].

framework and eligibility criteria for the current ESS Retrofit avoided cost rates prior to their approval,³ and 2) by acknowledging the market distortions that acutely afflicted the solar and ESS industries and forestalled interest in the ESS Retrofit avoided cost rates.⁴ Further, an existing solar QF that wishes to add battery storage and submits an interconnection request to an annual Definitive Interconnection System Impact Study cluster is subjected to a lengthy process—that will also require agreeing to a negotiated rate with the Companies—as the facility approaches the expiration of its PPA.

NCSEA’s proposed amended framework for ESS Retrofit avoided cost rates not only ensures that existing solar QFs remain on Duke’s system, but that the Companies are maximizing the use of the existing solar QFs to improve the management of the grid. ESS Retrofit avoided cost rates are a great concept, that occurred due to extensive work by many parties across several avoided cost proceedings, and represent a least-cost and expedited path to interconnecting more storage. Even if the predetermined ESS Retrofit avoided cost rates the Commission approved in the 2021 Sub 175 Proceeding are to expire, NCSEA does not agree the Commission should allow this concept to expire with them. Accordingly, NCSEA respectfully requests the Commission direct the Companies to develop new predetermined ESS Retrofit avoided cost rates to be considered in the next biennial avoided cost proceeding, and to adopt NCSEA’s proposed amended framework to properly incentivize existing QFs to pursue the addition of energy storage to their facilities upon renewing their PPAs for an additional term.

³ *Initial Comments of NCSEA*, Commission Dkt. No. E-100 Sub 194, 5–12 (Feb. 21, 2024) [hereinafter “NCSEA comments”].

⁴ *Id.*, at 12–17.

B. Comments Addressing the Inverter Based Resources Testing Report.

Agreement exists among the various parties—including Duke in its Inverter Based Resources Testing Report—that further testing is required to fully evaluate the ancillary services IBRs can provide.⁵ Accordingly, good cause exists for the Commission to direct the Companies to complete a more thorough study of the ancillary services for additional IBRs not studied. NCSEA requests that this ancillary services study become an iterative study, with stakeholder input, for the reasons set forth in its initial comments.⁶ Last, additional evidence was offered demonstrating that reactive power management and voltage support services have been successfully provided for several years.⁷ Therefore, NCSEA requests the Commission direct Duke to scope a pilot program to accurately compensate IBRs for the reactive power management and voltage support ancillary services they already provide.

C. Comments Addressing the Avoided Cost Methodology.

Having reviewed the materials filed by other parties, NCSEA agrees there exists a need to reevaluate the methodology for calculating future avoided cost rates. In the Sub 175 Order, the Commission directed the Companies and interested parties to “evaluate before the next biennial proceeding whether to propose an alternative method to calculate

⁵ *NCSEA comments*, at 19–22; *see also Public Staff comments*, at 12 (“review of the IBR Testing Report reveals the need for research using larger scale batteries, which are not subject to the sunlight variations that affect solar facilities. Transmission-connected solar facilities can provide some ancillary services, but energy storage will likely be necessary if QFs are to provide significant ancillary services in the future.”); *see also Public Staff comments*, App’x 1 (appending Duke’s response to Public Staff Data Request 4-10 stating its future testing plans to study ancillary services for standalone storage and solar-plus-storage.); *see also Initial Comments of CCEBA*, Commission Dkt. No. E-100, Sub 194, 6 (Feb. 21, 2024) (“CCEBA notes that the conclusions of the IBR Report itself reflect the need for substantially more information before conclusions as to the ancillary services benefits of these resources can be drawn”) [hereinafter “*CCEBA comments*”].

⁶ *NCSEA comments*, at 20–21.

⁷ *Public Staff comments*, App’x 1.

avoided costs.”⁸ NCSEA agrees that no meaningful engagement on this directive occurred and the Companies produced a perfunctory analysis on available methodologies in the Joint Initial Statement.⁹ As a result, NCSEA supports CCEBA’s proposal for a stakeholder process to “*fully* consider all alternatives to the peaker method” and develop consensus over the appropriate methodology prior to the start of the next biennial avoided cost proceeding.¹⁰ This stakeholder process, at a minimum, should deliberate the appropriate avoided cost calculation method, the appropriate proxy resource to be avoided, and the method to derive and compensate the value of carbon emission reductions. NCSEA believes this stakeholder process is necessary for parties to ensure that all value provided by QFs are appropriately compensated. Prior to the conclusion of the proposed stakeholder process, NCSEA takes no position on what the appropriate method is to calculate any of those values in future biennial avoided cost proceedings.

For the instant proceeding, NCSEA agrees with the Public Staff that the peaker method and the use of an F-frame CT as proposed by the Companies is appropriate.¹¹ However, NCSEA believes this is the last proceeding that this method and proxy resource should be used. As more data becomes publicly available—whether that data is through EIA’s updated Annual Energy Outlook for an Advanced Class Frame CT or data collected through a competitive solicitation price methodology—NCSEA is convinced the parties

⁸ *Order Establishing Standard Rates and Contract Terms for Qualifying Facilities*, Commission Dkt. No. E-100, Sub 175, 14–15 (Nov. 22, 2022).

⁹ See *CCEBA comments*, at 3–5 (emphasis in original).

¹⁰ *Id.*, at 5–6; see also *Comments of the Attorney General’s Office*, Commission Dkt. No. E-100, Sub 194, 20 (Feb. 21, 2024) (also requesting the Commission to direct the Companies, in consultation with the AGO, the Public Staff, and other interested intervenors to collaborate in evaluating the methodology and calculations for avoided cost rates and the value of carbon emission reductions to be included in rates.) [hereinafter “*AGO comments*”].

¹¹ *Public Staff comments*, at 14.

can now identify alternatives that accurately and completely capture the marginal capacity costs of the changing electricity system.

Additionally, like the AGO, NCSEA also recommends some procedural changes to avoided cost proceedings should the Commission find good cause for the Companies to continue determining their next capacity need and avoided energy rates through the Companies' CPIRP portfolios. NCSEA agrees with the AGO that avoided cost proceedings should more closely align with approved CPIRP portfolios than proposed CPIRP portfolios.¹² The AGO states, avoided cost proceedings are “complicated by the fact that the Commission is being asked to base avoided cost rates on a CPIRP that will not be approved until nearly 14 months after the Companies file[] their initial proposal” in avoided cost proceedings.¹³ Accordingly, the AGO recommends the Companies recalculate their avoided cost calculations within 90 days of the Commission's approval of its next and subsequent CIPRs.¹⁴

NCSEA concludes the AGO's proposed solution does not reduce the complexity of correlating the CPIRP proceedings with avoided cost proceedings. In particular, the need to vet updated calculations was a point of contention that prompted requests for a delay in this proceeding.¹⁵ Alternatively, NCSEA recommends adjusting the Commission calendar to have the Companies file their biennial avoided cost initial statements 90 days after the Commission's approval of any CPIRP portfolio—effectively moving the Companies' initial statement from November 1 to approximately April 1. Staggering the biennial

¹² *AGO comments*, at 19.

¹³ *Id.*

¹⁴ *Id.* at 19–20.

¹⁵ *Joint Motion for Extension of Time*, Commission Dkt. No. E-100, Sub 194, ¶¶ 2–4 (Jan. 29, 2024).

CPIRP proceedings with the biennial avoided cost proceedings in this manner will ensure avoided cost rates are based off Commission approved resource portfolios and should avoid any mid-proceeding updates. This proposal addresses the AGO’s concerns and achieves regulatory efficiency.

D. Support for CCEBA’s Comments Addressing Capacity Credits for New and Existing Solar QFs.

NCSEA joins CCEBA in its concern about the lack of capacity payments for new and existing solar QFs. NCSEA understands this concern relates to the Companies’ use of the loss of load risk methodology, which originated in an agreement between the Companies and Public Staff in the 2018 Sub 158 proceeding.¹⁶ Importantly, this methodology for determining seasonal and hourly allocations of capacity payments was approved in a regulatory environment that predates HB 951 and the Carbon Plan proceedings. Given the new statutory mandates to reduce carbon emissions from electric generating facilities, and that state utilities commissions “may take into account obligations imposed by the state” when establishing avoided cost rates,¹⁷ it is reasonable to analyze whether there is an uncompensated value that solar QFs provide—particularly in the summer months. The Companies state that they “plan to continue to discuss the accuracy and appropriateness of [this] rate design with the Public Staff between now and the next biennial avoided cost proceeding.”¹⁸ NCSEA requests that review of the loss of load risk

¹⁶ See *Stipulation of Partial Settlement Among Duke Energy Carolinas, LLC, Duke Energy Progress, LLC, and the Public Staff*, Commission Dkt. No. E-100, Sub 158, 5 (Apr. 18, 2019) (“The Stipulating Parties agree that it is reasonable and appropriate for the Companies’ seasonal and hourly allocations of capacity payments to be based on the loss of load risk identified . . .”).

¹⁷ *Order Granting Clarification & Dismissing Reh’g*, *Cal. Pub. Utils. Comm. So. Cal. Edison Co.* 133 F.E.R.C. ¶ 61,059, at 12–13 (Oct. 21, 2010); *reh’g denied*, 134 F.E.R.C. ¶ 61,044 (Jan. 20, 2011).

¹⁸ *Joint Initial Statement and Proposed Standard Avoided Cost Rate Tariffs*, Commission Dkt. No. E-100, Sub 194, 37 (Nov. 1, 2023).

methodology is incorporated into the proposed stakeholder process and discussed among all interested parties.

NCSEA also agrees with CCEBA that the expiration of existing solar QF PPAs, if not renewed in some manner, will create a capacity need. The continued operation of existing solar QFs to provide carbon-free energy to Duke’s system is essential to achieve HB 951’s mandates in a least-cost manner. NCSEA is concerned that without proactive planning for existing solar QFs to transition off their initial PPA—even if most solar QF PPAs will not expire until after the next two additional biennial avoided cost proceedings—parties will be forced to plan for replacing significant capacity of non-carbon emitting generation resources. A better use of the Commission’s and parties’ resources will be planning to avoid that next marginal unit of energy and/or that next ton of carbon instead of replacing system capacity that solar QFs have provided. Therefore, like the approval of the loss of load risk methodology in the 2018 Sub 158 proceeding, NCSEA believes HB 951 necessitates the review of past decisions guiding the treatment of expiring QFs.¹⁹ In a carbon-constrained operating environment, it *is not* “imprudent resource planning” to seek a non-carbon emitting resource to renew a PPA at the end of its contract term, especially if that resource contributes to the least-cost pathway to carbon compliance.²⁰ It *is* imprudent to assume that a non-carbon emitting resource can be replaced in kind at the end of its contract given the changes and limits to the procurement of solar in recent years.²¹

¹⁹ *Order Establishing Standard Rates and Contract Terms for Qualifying Facilities*, Commission Dkt. No. E-100, Sub 158, 51 (Apr. 15, 2020) (discussing whether it is “discriminatory to assume that a pre-existing QF has a priority right to enter into a new contract to sell and deliver capacity over a new term versus the right of any other QF to commit itself to avoid the utility’s capacity need.”).

²⁰ *See id.*

²¹ *See Public Staff Comments*, at 16–17 (explaining the reduction in number and capacity of new QFs); *see also Carolinas Resource Plan*, Ch. 2 - Methodology and Key Assumptions, Commission Dkt. No. E-100,

Each additional unit of solar procured should help avoid that next unit of carbon, not backfill lost carbon-free capacity. Accordingly, existing QFs should be compensated for this benefit their capacity provides.

The treatment of solar QFs as they approach the expiration of their standard offer PPA term is a priority for NCSEA. NCSEA's motivation to propose an amended ESS Retrofit avoided cost rates framework was, in part, to address the significant amount of generation and capacity provided by solar QFs that are reaching the end of their PPA term. NCSEA seeks an opportunity to collaborate with the Companies, Public Staff, and other interested parties to develop solutions for the renewal of existing solar QF PPAs that may be more advantageous to ratepayers, the utility, and the developer as this energy transition progresses.

E. Support for SACE's Recommendations on the Net Excess Energy Credit.

NCSEA agrees with SACE's two principles to guide review of the Net Excess Energy Credit ("NEEC").²² Accordingly, NCSEA also agrees with the refinements to the NEEC calculations as proposed by SACE's expert consultant, Justin Barnes. Expert Barnes recommended 1) using a 10-year time horizon of avoided costs for the annualized NEEC calculation, 2) incorporating distribution line loss factors into the calculation of the NEEC, and 3) requesting an investigation into the incorporation of avoided transmission and

Sub 190, 34 (Aug. 17, 2023) (showing the annual solar interconnection limits in the Companies' modeling approach).

²² *Initial Comments of the Southern Alliance for Clean Energy*, Commission Dkt. No. E-100, Sub 194, 5 (Feb. 21, 2024) (reviewing the NEEC should (1) "accurately compensate rooftop solar customers for the costs that their solar generating facilities allow Duke to avoid . . . and (2) the proposed NEEC should comply with the law and the Commission's prior orders.") (internal citations omitted) [hereinafter "SACE comments.

distribution costs into the NEEC.²³ These refinements are reasonable and facilitate the achievement of the first guideline, accurately compensating rooftop solar customers for the costs they help Duke avoid.

II. CONCLUSION

For the reasons set forth herein, and upon review of the various initial comments made from the parties, NCSEA respectfully requests that the Commission consider these reply comments in this proceeding and recommends that the Commission:

1. Direct the Companies to develop new predetermined ESS Retrofit avoided cost rates to be considered in the next biennial avoided cost proceeding, and to adopt NCSEA's proposed amended framework;
2. Direct the Companies to complete a subsequent ancillary services study for additional IBRs, like larger scale batteries and solar-plus-storage facilities, not studied in the Companies Inverter Based Resources Testing Report filed in the 2021 Sub 175 proceeding;
3. Direct the Companies to scope a pilot program to accurately compensate IBRs for the reactive power management and voltage support ancillary services they already provide;
4. Direct the Companies, in consultation with the Public Staff and other interested parties, to convene a stakeholder process to develop consensus on the following items prior to the next biennial avoided cost proceeding:
 - a. the appropriate avoided cost methodology in a carbon-constrained operating environment;

²³ See generally *SACE Comments*, Attachment 4.

- b. the appropriate proxy resource to be avoided;
 - c. the appropriate method to derive and compensate the value of carbon emission reductions;
 - d. the appropriateness and accuracy of the loss of load risk methodology; and
 - e. the appropriate contracting options to 1) renew solar QFs beyond their current PPA term and 2) fully compensate solar QFs for all the costs they help the Companies avoid.
5. Adopt SACE's Expert Barnes' refinements to the NEEC calculation and direct the Companies to recalculate this value accordingly.

Respectfully submitted this 27th day of March, 2024.

/s/ Justin T. Somelofske
Justin T. Somelofske
N.C. State Bar No. 61439
Ethan Blumenthal
N.C. State Bar No. 53388
4441 Six Forks Road, Suite 106-250
Raleigh, NC 27609
(862) 219-1318
justin@energync.org
ethan@energync.org

*Counsel for the North Carolina
Sustainable Energy Association*

CERTIFICATE OF SERVICE

I hereby certify that all persons on the docket service lists have been served true and accurate copies of the foregoing by hand delivery, first class mail deposited in the U.S. mail, postage pre-paid, or by email transmission with the party's consent.

This the 27th day of March, 2024.

/s/ Justin T. Somelofske
Justin T. Somelofske
N.C. State Bar No. 61439
Regulatory Counsel
4441 Six Forks Road, Suite 106-250
Raleigh, NC 27609
(862) 219-1318
justin@energync.org

*Counsel for the North Carolina
Sustainable Energy Association*