

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-100, SUB 175

In the Matter of:)

Biennial Determination of)
Avoided Cost)

Rates for Electric Utility)

Purchases from)

Qualifying Facilities – 2021)
)REPLY COMMENTS OF THE
SOUTHERN ALLIANCE FOR
CLEAN ENERGY**I. INTRODUCTION**

The Southern Alliance for Clean Energy (“SACE”) submits these Reply Comments pursuant to the *Order Establishing Biennial Proceeding, Requiring Data, and Scheduling Public Hearing* (“Order Establishing 2021 Biennial Proceeding”) issued by the North Carolina Utilities Commission (“Commission”) on August 13, 2021, the Commission’s February 7, 2022 *Order Granting Joint Motion for Extension of Time*, and the Commission’s March 25, 2022 *Order Granting Motion for Extension of Time of Duke Energy Carolinas, LLC, and Duke Energy Progress, LLC*. These Reply Comments respond first to the Initial Statement of the Public Staff and second to the Joint Initial Comments of Carolinas Clean Energy Business Association (“CCEBA”) and North Carolina Sustainable Energy Association (“NCSEA”).

II. INITIAL STATEMENT OF THE PUBLIC STAFF**A. Avoided Cost Rate for Net Energy Metering Net Excess Energy Credit**

The Public Staff rightly points out that under the Joint Application for Approval of Revised Net Energy Metering Tariffs in Docket Nos. E-7, Sub 1214, E-2, Sub 1219, and E-2, Sub 1076 (“NEM Tariffs”) filed by Duke Energy Carolinas, LLC (“DEC”), Duke

Energy Progress, LLC (“DEP”) (together “Duke”), and Dominion Energy North Carolina (“DENC” or “Dominion”) (collectively, the “Utilities”), the Net Excess Energy Credit (“NEEC”) is based on the two-year annualized avoided cost rate, at the distribution level, for Uncontrolled Solar Generators.¹ The Public Staff recommends instead requiring Duke to make a supplemental filing providing a re-calculated annualized NEEC rate that is: i) weighted to a solar profile; ii) differentiated by season; and iii) based on the 5-year avoided cost rates. Initial Statement of the Public Staff 5.

The Public Staff’s recommendation is unnecessary and ill-advised at this time. All rooftop solar represents only approximately 0.2% of generation in DEP, projected to grow to only approximately 1.7% by 2035,² and approximately 0.2% in DEC, projected to grow to only approximately 1.9% by 2035,³ and the amount of rooftop solar generation receiving the NEEC will be only a very small fraction of that amount because a significant portion of rooftop solar energy is consumed behind the meter. The avoided cost payments that the owners of rooftop solar would receive for this small percentage of generation are inconsequential in the context of Duke’s overall revenue requirement. Accordingly, any potential increase in the accuracy of the avoided cost rate calculated as proposed by the Public Staff would not make a meaningful difference to non-rooftop solar customers and would not outweigh the added administrative difficulty of implementing the Public Staff’s proposal and further complicating compensation for generation from rooftop solar at this time. In addition, before considering any kind of change in the methodology for assigning

¹ Initial Statement of the Public Staff 3.

² DEP 2020 IRP at 230, Table C-10, Docket No. E-100, Sub 165,
<https://starw1.ncuc.gov/NCUC/ViewFile.aspx?Id=425097c5-fe15-4925-b1b9-8712b8c5261b>.

³ DEC 2020 IRP at 239, Table C-10, Docket No. E-100, Sub 165,
<https://starw1.ncuc.gov/NCUC/ViewFile.aspx?Id=9752b166-f870-4b0c-8469-8f791405d95c>.

the value of avoided cost rates that would be specific to rooftop solar customers, the Commission should fully vet that methodology to ensure that it properly accounts for the particular benefits of distributed rooftop solar generation.

B. Cost of Carbon

SACE agrees with the Public Staff that by establishing carbon-reduction mandate in law, Session Law 2021-165 establishes a limit on carbon dioxide emissions that is directly related to a price on carbon dioxide.⁴

SACE does not agree, however, that the Commission should wait until after the Carbon Plan is approved to begin applying a cost of carbon in the avoided cost proceeding.⁵ As discussed in SACE's Initial Comments, the logic of the Commission's "known and verifiable" standard for carbon costs no longer supports delay. Session Law 2021-165 is state law and translates into a cost of carbon dioxide emissions for purposes of avoided cost calculations in this docket. The precise cost of carbon dioxide emissions will vary as Duke's system changes, the costs of different generation technologies change, and other factors change, potentially even including the cost of carbon dioxide emissions allowances. But the Commission cannot wait until all of those inputs are absolutely certain before it includes a cost of carbon in avoided cost or it would be limited to a purely retrospective analysis that is inconsistent with the forward-looking nature of avoided cost proceedings. Numerous longstanding inputs into avoided cost calculations, such as load forecasts or fuel prices, rely on future assumptions that are not perfectly certain, and this applies to other proceedings as well. By contrast, failing to apply a cost of carbon is equivalent to applying

⁴ Initial Statement of the Public Staff 8; *see* Initial Comments of SACE 33-34.

⁵ *See* Initial Statement of the Public Staff 9.

a cost of carbon of exactly \$0/ton, which in North Carolina's carbon-constrained energy landscape is factually incorrect.

C. Real Time Pricing Tariffs

The Public Staff supports Duke's proposal to create a new "as-available" rate to be based on marginal cost rates that are calculated ex-post at the end of the month, on the grounds that it will reduce the risk of overpayment to QFs that do not contractually obligate themselves to sell and deliver power to Duke for a fixed term.⁶

SACE respectfully disagrees. As discussed in SACE's Initial Comments, this proposal is not consistent with Order No. 872 or industry practice, nor is calculation ex-post necessary in order to mitigate any risk of overpayment.⁷ The Public Staff's concern about overpayment could be remedied by a price set ex ante but adjusted more frequently than it is adjusted currently.

D. Ancillary Services

As explained in SACE's Initial Comments, QFs are entitled to compensation for providing ancillary services.⁸ Accordingly, SACE respectfully disagrees with the first half of the Public Staff's assertion that "PURPA's mandatory purchase obligation does not extend to ancillary services, it also does not prohibit the procurement of ancillary services from QFs."⁹

SACE agrees with the Public Staff that "[w]ithout knowing Duke's ancillary service costs, it is difficult to determine the degree to which procuring ancillary services

⁶ Initial Statement of the Public Staff 13-14.

⁷ Initial Comments of SACE 31-32.

⁸ *Id.* at 25-31; *see also* Joint Initial Comments of CCEBA and NCSEA 11-13 (explaining that peaker method does not compensate QFs for ancillary services).

⁹ Initial Statement of the Public Staff 17-18.

from QFs could provide savings to ratepayers,”¹⁰ and SACE would support investigation into Duke’s costs to provide services and ongoing transparent production of the results.

However, SACE disagrees that opacity about Duke’s costs, or the potential trade-off a QF owner/operator might need to make between selling energy and selling ancillary services (a decision best left to the QFs as market actors), constitute good reasons to deny the owner/operators of QFs compensation for ancillary services they provide.¹¹ As explained by CCEBA and NCSEA, QFs currently provide some ancillary services and should be compensated for doing so.¹²

SACE agrees with the Public Staff that the Commission and all interested parties would benefit from a more detailed understanding of the technical ability of QFs to provide ancillary services and the associated costs, and further, supports the Public Staff’s suggestion to establish a pilot program to that end.¹³

E. Proposed Rates—Peaker Method

SACE agrees with the Public Staff that the peaker method might soon be inappropriate for North Carolina.¹⁴ However, SACE disagrees that the peaker method mandates using a simple industrial frame CT to calculate avoided costs in this proceeding, as the Public Staff appears to accept.¹⁵ The peaker method frequently relies on the assumption that the avoided peaking unit would be a CT, but that is not

¹⁰ *Id.* at 19.

¹¹ *See id.* at 18-19 (“it is not appropriate at this time to compensate QFs for ancillary services beyond the increment provided to QFs that are able to avoid Duke’s SISC by smoothing their volatility”).

¹² Joint Initial Comments of CCEBA and NCSEA 4-17.

¹³ Initial Statement of the Public Staff 19; *see* Joint Initial Comments of CCEBA and NCSEA 16-17 (supporting further evaluation of solar and solar + storage facilities’ ability to provide ancillary services, and supporting ancillary services pilot); Initial Comments of SACE 31 (recommending independent study or pilot).

¹⁴ Initial Statement of the Public Staff 24-25; *see* Initial Comments of SACE 5; *see also* Joint Initial Comments of CCEBA and NCSEA 3.

¹⁵ *See* Initial Statement of the Public Staff 25.

necessarily the avoided peaking unit.¹⁶ The appropriate avoided peaking unit is “the lowest-cost capacity option available to the utility.”¹⁷ As explained in SACE’s Initial Comments, in light of Session Law 2021-165 Duke forecasts procuring different peaking units in the very near future, and the operational advantages of an aeroderivative gas turbine make that technology the most appropriate avoided peaking unit for this proceeding.¹⁸

F. Duke’s Avoided Cost of Energy—Over-Reliance on Appalachian Gas

SACE shares the Public Staff’s concern that Duke’s longer-term projections of avoided energy costs may be inaccurate due to potential overreliance on lower-priced shale gas, which depends on the assumption that certain fossil gas pipelines will be constructed.¹⁹ As the Public Staff notes, the Mountain Valley Pipeline lacks a number of necessary permits and NextEra Energy has stated in a filing with the Securities and Exchange Commission that the probability it will be completed is very low.²⁰ Nevertheless, the Public Staff “does not recommend the use of the Limited DS Hub Gas portfolio as the basis for calculating avoided energy rates” at this time.²¹ SACE agrees for this proceeding, but recommends close scrutiny of avoided energy calculations in future proceedings to ensure that they are based on accurate assumptions about gas transport.

¹⁶ ROBERT E. BURNS AND KENNETH ROSE, NAT’L ASSOC. OF REG. UTILS. COMM’RS, PURPA TITLE II COMPLIANCE MANUAL 35 (2014), <https://pubs.naruc.org/pub/B5B60741-CD40-7598-06EC-F63DF7BB12DC>; CAROLYN ELEFANT, REVIVING PURPA’S PURPOSE: THE LIMITS OF EXISTING STATE AVOIDED COST RATEMAKING METHODOLOGIES IN SUPPORTING ALTERNATIVE ENERGY DEVELOPMENT AND A PROPOSED PATH FOR REFORM 18, <http://www.recycled-energy.com/images/uploads/Reviving-PURPA.pdf>.

¹⁷ BURNS AND ROSE, *supra* n.16 at 35.

¹⁸ Initial Comments of SACE 3-16.

¹⁹ Initial Statement of the Public Staff 41-44; *see also* Reply Comments of the Public Staff, Docket No. E-100, Sub 165 (May 28, 2021), <https://starw1.ncuc.gov/NCUC/ViewFile.aspx?Id=1f3d0982-f9f5-43e1-ae5c-881e21b2a266>.

²⁰ Initial Statement of the Public Staff 41-42.

²¹ *Id.* at 41.

G. Modification of Terms and Conditions

The Public Staff summarized some of the requirements of Federal Energy Regulatory Commission (“FERC”) Order No. 872, and it generally supported Duke’s revisions to its notice of commitment (“NOC”) form and DENC’s revisions to its legally enforceable obligation (“LEO”) form, both of which were intended to implement Order No. 872. One of DENC’s revisions to its LEO form requires a QF to provide information concerning its location and the location of affiliates in order to demonstrate compliance with the new same-site rule established in Order No. 872, and, if between one and ten miles from an affiliated facility, to provide additional information to “to rebut the presumption that it is located at the same site as the affiliated project.”²² The Public Staff found this revision consistent with Order No. 872.²³

However, DENC’s revision to its LEO form appears to be based on an incorrect interpretation of Order No. 872. Under Order No. 872, when a facility seeking certification or recertification is located between one and ten miles from an affiliated facility, it is presumed to be located at a *separate* site.²⁴ In its Initial Statement, DENC correctly summarizes the presumption that applies in this “less clear, grey zone where affiliated facilities are more than one mile apart but less than 10 miles apart,”²⁵ stating that “there is a rebuttable presumption that affiliated small power production QFs that use the same energy resource and are located more than one mile and less than 10 miles from each other are located at separate sites.”²⁶ But DENC inverted the assumption when explaining the

²² DENC Initial Statement 30.

²³ Initial Statement of the Public Staff 56.

²⁴ Qualifying Facility Rates & Requirements Implementation Issues Under the Pub. Util. Regul. Pol'ys Act of 1978, 172 FERC ¶ 61,041, 61,260 (2020) (Order No. 872 ¶ 466).

²⁵ Qualifying Facility Rates & Requirements Implementation Issues Under the Pub. Util. Regul. Pol'ys Act of 1978, 173 FERC ¶ 61,158, 61,992 (2020) (Order No. 872-A ¶ 244).

²⁶ Initial Statement of DENC 30.

new sections of its LEO form, stating, “[i]f a QF is located between one and 10 miles of an affiliated facility using the same energy resource, the revised LEO Forms allow the QF to provide more detailed confirmations to rebut the presumption that it is located at the same site as the affiliated project,”²⁷ and the incorrect interpretation appears to be driving the revision to DENC’s LEO form.

The revision is unnecessary. First, because the presumption is that affiliated facilities located between one and ten miles from one another are at *separate* sites, there is no need to provide DENC with additional information concerning their separateness. Second, under Order No. 872 a QF already will “provide further information in its certification (both self-certification and application for Commission certification) or recertification (both self-certification and application for Commission recertification), to preemptively defend against anticipated challenges by identifying factors that affirmatively show that its facility is indeed at a separate site from affiliated small power production QFs that use the same energy resource and that are more than one but less than 10 miles from its facility.”²⁸ The non-exclusive factors that FERC will consider, case by case, in determining whether facilities in this range are located at separate sites are confusing, partly because many are unrelated to the location of the QFs.²⁹ A QF seeking certification or recertification that anticipates a protest by some party, such as its purchasing utility, will discuss the factors and make its preemptive case for separateness in its Form 556.³⁰ Accordingly, the statement in Form 556 should be considered the QF’s definitive statement

²⁷ Initial Statement of DENC 30.

²⁸ Order No. 872 ¶ 467; *see id.* ¶¶ 480, 492, 510.

²⁹ *See id.* ¶¶ 509-11.

³⁰ *Id.* ¶ 593.

of separateness and an additional statement in a LEO form would be duplicative and likely cause further confusion in the analysis.

III. JOINT INITIAL COMMENTS OF CCEBA AND NCSEA

A. Ancillary Services

In its Initial Comments, SACE noted that it expected that NCSEA and CCEBA would demonstrate that some QFs already provide ancillary services and could provide additional ancillary services with relatively low-cost modifications.³¹ As expected, NCSEA and CCEBA amply demonstrated this in their Joint Initial Comments, focusing first on the potential at existing facilities and then on new facilities.³² SACE reaffirms its support for investigating the cost to Duke to provide ancillary services, the potential market and associated savings for ancillary services provided by QFs, and a potential pilot program to investigate these issues further.

B. Avoided Cost Rates

In its Initial Comments, SACE pointed out that the peaker method is not keeping up with the changing energy landscape and recommended that the Commission begin considering alternatives.³³ SACE agrees with CCEBA and NCSEA's suggestion that the Commission and interested stakeholders reevaluate the method.³⁴

C. Gas Price Forecasts

CCEBA and NCSEA recommend that the Commission require Duke to use "eighteen months of forward market prices before transitioning to a blended fundamentals forecast, using at least two reputable sources, for the remainder of the

³¹ Initial Comments of SACE 25.

³² Joint Initial Comments of CCEBA and NCSEA 4-17.

³³ Initial Comments of SACE 4-5.

³⁴ Joint Initial Comments of CCEBA and NCSEA 17-18.

planning period.”³⁵ This is compatible with SACE’s more specific recommendation to use 18 months of forward market prices followed by 18 months of blended prices, before switching fully to fundamental forecasts, and for the fundamental forecasts, averaging the Spring 2021 IHS and EIA 2021 Reference Case.³⁶

D. Contract Terms

CCEBA and NCSEA raise a serious concern about Duke’s proposal to amend its NOC form to require a QF to represent that it will begin delivering power to Duke within one year.³⁷ To comply with that one-year deadline, a QF will need to work backwards from the date it can deliver power and submit its NOC form less than a year before that date. Because the interconnection process can take multiple years, a QF will need to proceed through the interconnection process for years before it can submit its NOC, and therefore, for years before it obtains a LEO, all while investing significant resources under uncertainty. This would establish an unnecessary obstacle to QF financing. Accordingly, SACE agrees with CCEBA and NCSEA that the Commission should correct this problem, and SACE endorses CCEBA and NCSEA’s proposed resolution, namely, having a QF instead represent in its NOC form that it will begin delivering the output of its facility to Duke within 90 days of Duke’s completion of all required interconnection facilities and network upgrades.³⁸

³⁵ *Id.* at 22.

³⁶ Initial Comments of SACE 22.

³⁷ Joint Initial Comments of CCEBA and NCSEA 22-25.

³⁸ *See id.* at 23-24.

Conclusion

SACE thanks the Commission for considering these Reply Comments and looks forward to offering additional recommendations through other avenues such as stakeholder input processes.

Respectfully submitted this the 31st day of March, 2022.

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CERTIFICATE OF SERVICE

I hereby certify that all persons on the docket service list have been served true and accurate copies of the foregoing filing 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 31st day of March, 2022.

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