STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-2, SUB 1170
DOCKET NO. E-7, SUB 1169

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Petition for Approval of Green Source Advantage Program and Rider GSA to Implement N.C. Gen. Stat. § 62-159.2	)))	**REPLY COMMENTS OF THE PUBLIC STAFF**

NOW COMES THE PUBLIC STAFF – North Carolina Utilities Commission, by and through its Executive Director, Christopher J. Ayers, and, pursuant to the Commission's January 26, 2018, *Order Establishing Proceeding to Review Proposed Green Source Rider Advantage Program and Rider GSA* in the above captioned docket, respectfully submits the following reply comments to the initial comments by various parties[1] related to the Green Source Advantage Program ("GSA Program") and Rider GSA tariffs filed by Duke Energy Carolinas, LLC ("DEC"), and Duke Energy Progress, LLC ("DEP") (collectively, "Duke") on January 23, 2018.

In their initial comments, parties generally took issue with the proposal by Duke to link the GSA Program proposed by Duke pursuant to Part III of House Bill 589 (S.L. 2017-192) to the Competitive Procurement for Renewable Energy

[1] On February 22, 2018, United States Department of Defense and all other Federal Executive Agencies ("DOD/FEA") filed joint initial comments. On February 23, 2018, initial comments were also filed by Wal-Mart Stores East, and Sam's East, Inc. (collectively, "Wal-Mart"); Apple and Google; the North Carolina Sustainable Energy Association ("NCSEA"); the University of North Carolina at Chapel Hill ("UNC-CH"), the North Carolina Clean Energy Business Alliance ("NCCEBA"), the Southern Alliance for Clean Energy ("SACE"), and the Public Staff.

("CPRE") Program proposed by Duke pursuant to Part II of House Bill 589. Instead, the parties noted that the General Assembly intended for those Parts to serve different roles and purposes, with the programs not being linked until five years after the initial implementation of the GSA Program, at which time any unsubscribed capacity remaining in the GSA Program would fold into the next solicitation offered under the CPRE Program. These comments were generally consistent with the Public Staff's position on this point.

In our initial comments, the Public Staff took issue with Duke's Standard Offer that links the implementation of the GSA Program to the CPRE Program in a way that was counter to the timeframes and purposes called for in each statute. The Public Staff stated that we generally agreed with Duke's proposed Self-Supply option, but took exception with Duke's proposed utilization of the CPRE Tranche One weighted average price to form the basis for the bill credit under the Self-Supply option for the initial GSA offering period. The Public Staff did not provide a specific recommendation for the Commission with regard to the appropriate bill credit for customers that chose to participate in the GSA Program in our initial comments, instead noting the guidance provided in G.S. 62-159.2(e), in part, that:

> The program customer shall receive a bill credit for the energy as determined by the Commission; provided, however, that the bill credit shall not exceed utility's avoided cost. The Commission shall ensure that all other customers are held neutral, neither advantaged nor disadvantaged, from the impact of the renewable electricity procured on behalf of the program customer.

This section authorizes the Commission to determine the appropriate basis for the bill credit to be received by the GSA Customer, ensuring that all other (non-

participating) customers are held neutral, or are indifferent, to the renewable energy procurement option being made available to participating customers, with the only limitation being that the bill credit could not exceed the utility's avoided cost.

Other parties, including NCCEBA, NCSEA, SACE, UNC-CH, and Wal-Mart, indicated in their initial comments that they took issue with the bill credit proposed by Duke under the Self-Supply option, and recommended that the bill credit instead be tied to the Commission's most recently approved avoided costs rates over the term of the power purchase agreement (PPA) between Duke and the renewable energy supplier:

NCCEBA (p. 21)	"[T]he GSA Bill Credit should be "equal to the applicable utility's avoided cost rate over a period equal to the contracting period of the GSA PPA and calculated at the time of the GSA Customer's application (based on the Commission's most recently approved avoided cost methodology) multiplied times the kilowatt hours delivered by the Designated GSA Facility to the utility."
SACE (p. 11)[2]	"Rather than linking the GSA Bill Credit to competitive solicitation prices, GSA Customers should receive a bill credit equal to Duke's applicable avoided cost rate. The avoided cost rate represents the rate at which non-participating customers are held neutral from the impact of the renewable energy procured on behalf of the program customer, consistent with G.S. § 62-159.2(e). A GSA Bill Credit at Duke's avoided cost rate will also give GSA Customers the opportunity to

[2] SACE further noted in its footnote 38 that "Self-Supply Customers that choose 2-year or 5-year contracts will pay and receive GSA charges and credits based on the lesser of 1) a negotiated PPA rate or 2) Duke's avoided cost rate. Therefore, the only scenario in which GSA charges and bill credits equal avoided cost—thereby holding all other customers neutral—is a Self-Supply 2-year or 5-year contract priced at Duke's avoided cost rate."

	realize electric bill savings if they are able to negotiate price terms with the GSA Supplier at a price below Duke's avoided cost rate."
UNC-CH (p.4)	"[T]he intent of the GSA Statute was for the bill credit to customers in the Green Source Program to be equal to Duke Energy's cost of purchasing electricity overall and not just the lower cost associated with buying renewable power."
Wal-Mart (p. 11)	"The Commission should recognize that customers enter into these programs with the intention of buying renewable vs. system as opposed to buying renewable vs. renewable, and if the Commission approves the GSA Self-Supply option, it should set the GSA Bill Credit based on the respective avoided costs for DEC and DEP;"

NCSEA and SACE similarly stated that Duke's proposal to cap the bill credit mechanism for certain participants to the lesser of the PPA price or avoided cost under the Self-Supply option results in a cross-subsidization by transferring benefits from GSA participants to all other customers, in violation of G.S. 62-159.2(e). NCSEA, for example, stated that "if the PPA price negotiated between a participant and a renewable energy facility developer is below Duke's avoided cost, then the difference between Duke's avoided cost and the PPA price would represent a benefit to either the Companies or to non-participating customers at the expense of participants."[3]

One of the key questions in this discussion centers on the legislative intent behind the enactment of G.S. 62-159.2: Was it designed to establish a voluntary program for customers to choose to participate in solely for the purposes of

[3] NCSEA Initial Comments at p. 4.

procuring new renewable energy resources in North Carolina, or was it also intended to provide participating customers with an opportunity to negotiate a renewable energy procurement at a cost below their bill credit, thereby establishing an additional financial incentive for participation? If it is the latter, then how do you reconcile the financial incentive provided to GSA participating customers while holding non-participating customers harmless?

The Public Staff notes that G.S. 62-159.2(b) clearly indicates that participating customers are allowed to "select the new renewable energy facility from which the public utility shall procure energy and capacity," as well as to "negotiate with renewable energy suppliers regarding price terms." These provisions support the concept that the procurement program was intended to be more than simply a generic purchase of renewable energy attributes from facilities, instead establishing a process by which participating customers could identify projects and negotiate prices directly for the procurement of not only the renewable energy attributes, but also the energy and capacity component of the purchase.

Several parties indicated their opinion that both Duke's Standard Offer option and Self-Supply Option are little more than REC purchase programs with an added administrative fee, and that under the GSA Program proposed by Duke, potential GSA customers would pay higher, not lower, energy costs, and would therefore choose to not participate in the program.[4] SACE states that "large nonresidential customers seeking to procure renewable energy increasingly prefer

[4] *See, e.g.*, UNC-CH Initial Comments at p. 4, DOD/FEA Initial Comments at p. 3, and Wal-Mart Initial Comments at pp. 5, 8.

'green tariffs' rather than REC-purchase programs because of the opportunity that a well-designed green tariff provides customers to economically benefit from the development of a new renewable energy facility."[5]

NCSEA similarly stated that the General Assembly explicitly directed that the financial benefit provided by clean energy procured through a green tariff pursuant to G.S. 62-159.2 is to accrue to the benefit of the participating ratepayer, and not to all ratepayers.[6]

With regard to setting the bill credit at avoided costs, the Public Staff notes that the Commission in its October 11, 2017 *Order Establishing Standard Rates and Contract Terms for Qualifying Facilities* in Docket No. E-100, Sub 148 ("2016 Avoided Cost Order"), noted that

> PURPA and the FERC rules implementing PURPA require each electric utility to purchase electricity produced by QFs at the utility's "incremental cost of alternative energy," commonly called "avoided costs." These rates must be just and reasonable to the electric consumers, in the public interest, and non-discriminatory to the QFs. *Properly established, the avoided cost rates make the purchasing utility indifferent to purchasing electric output from a QF or from another source, including the utility building and owning its own generation facility.* (2016 Avoided Cost Order at p. 17) (emphasis added).

This statement, that properly established avoided cost rates make the purchasing utility "indifferent" to the source of the electric output, is comparable to the "neutrality" requirement in G.S. 62-159.2(e) with regard to the impact of the GSA program on non-participating customers. If the GSA bill credit is properly established, non-participating customers should be indifferent to the source of the

[5] SACE Initial Comments at p. 7.
[6] NCSEA Initial Comments at p. 5.

purchased electric output, whether from utility-owned generation, PURPA qualifying facilities, or other purchased power.

In its 2016 Avoided Cost Order, the Commission considered the directives in House Bill 589, and along with the extensive evidence presented by parties in that proceeding, made substantial changes to the standard offer terms and eligibility thresholds for qualifying facilities in the State, stating that these efforts "reflect a comprehensive effort to modify the State's avoided cost policies towards a model that is more efficient and sustainable over the long term, while at the same time providing protection to ratepayers from overpayment risk and certainty to QFs."[7] With regard to the length of the standard offer term, the Commission implemented the statutory changes in House Bill 589 that called for a maximum contract term of 10 years for facilities eligible for standard offer contracts (those generally 1 megawatt (MW) or less in capacity), and the terms for larger, negotiated facilities not eligible for the standard contract were limited to five years pursuant to G.S. 62-156.

These actions taken by the General Assembly and the Commission to reduce the risks of overpayment and underpayment by ratepayers are relevant to the analysis of Duke's proposed GSA Program. While G.S. 62-159.2(b) provides that the standard terms and conditions available to renewable energy suppliers under the GSA Program "shall provide a range of terms between two years and 20 years from which the participating customer may elect," it does not require the

[7] 2016 Avoided Cost Order at p. 38.

Commission to fix the bill credit for the same term as the contract between the renewable energy supplier and the utility. To the extent that renewable energy suppliers and GSA participants agree to maximum length PPAs with terms longer than 10 years, the Public Staff believes that utilizing a fixed bill credit of an equivalent length would result in non-participating customers facing overpayment and underpayment risk for the same reasons considered in the 2016 Avoided Cost Order, thereby violating the neutrality concept required by G.S. 62-159.2(e).

In addition, the Commission in its 2016 Avoided Cost Order acknowledged other potential costs and benefits associated with the different supply characteristics of intermittent resources such as solar, including the availability of capacity during peak hours, the QF's dispatchability and reliability, and the value of the QF's energy and capacity.[8] It did not, however, direct the utilities to revise their rates to reflect these characteristics at this time. Instead, the Commission directed Duke and Dominion Energy North Carolina to "consider and propose additional rate schedules in the next avoided cost proceeding that are based upon a consideration of the characteristics of the power supplied by the QF and not the technology that the QF uses to generate electricity."[9] Further, based on evidence in the 2016 avoided cost proceeding regarding the impact of distributed generation on line losses and other power flow conditions, the Commission directed Duke to "study the impact of distributed generation on power flows on their distribution

[8] 2016 Avoided Cost Order at pp. 97-98.
[9] *Id.*

circuits and provide the results of that study as a part of their filings in the next biennial avoided cost proceeding."[10]

Based on these considerations, the Public Staff believes that if the Commission chooses to use administratively determined avoided costs to establish a bill credit for GSA purposes, the credit must be limited to reflect the risk that would otherwise be borne by non-participating customers. Therefore, the Public Staff recommends that participating customers should be entitled to a bill credit that is equal in length to the term of the PPA signed between the renewable energy supplier and the utility, but the initial period over which the bill credit is fixed should be no more than 10 years, which reflects a longer term for fixed avoided cost rates than would otherwise be available for a negotiated PPA for a QF project over 1 MW, and is equivalent in length to the maximum length of term for standard offer QFs.

Following the initial period of the fixed bill credit, the bill credits can then be "refreshed" to reflect the current avoided cost rates for the next five or 10 years, as appropriate. This refresh period would allow for changes in market conditions to be considered, such as updates to natural gas price forecasts, and to the extent other factors such as the specific costs and benefits of the energy and capacity from renewable energy resources have been sufficiently calculated and

[10] *Id.* at p. 93.

incorporated into avoided costs, these costs can be incorporated into the refreshed bill credit at that time.[11]

While using a shorter 10-year term with a rate refresh on the bill credit for a 20-year GSA contract does introduce some term risk to the GSA customer, it also introduces possible upside. For example, if avoided cost rates rise in 10 years due to unexpected increases in natural gas prices, it could very well result in significant savings to the GSA customer over the second half of their contract, providing the type of hedge against future rate increases and price volatility observed in traditional fuel markets that NCSEA, SACE, UNC-CH and other parties indicate was one of the primary benefits associated with expanding renewable energy procurement options.[12]

If, however, the Commission determines that avoided costs do not provide an appropriate basis for the GSA bill credit, the Public Staff believes that the Commission could also consider the following options to help ensure that non-participating customers are neither advantaged nor disadvantaged by the GSA Program:

1. **Bill Credit Based on Energy Only:** G.S. 62-159.2(e) provides that the "[t]he program customer shall receive a bill credit for the *energy* as

[11] The Public Staff notes that in the 2016 Avoided Cost Order, the Commission discussed the concept of linking the avoided energy rate fuel cost component to a published composite index or establishing a band or collar on the adjustment amount that was raised by parties and found that this concept deserved additional study in a future proceeding. See 2016 Avoided Cost Order at. p. 69. As stated by the Commission, "this concept tends to provide additional certainty to QFs, while mitigating the risk of inaccurate avoided energy rates in the future."

[12] NCSEA Initial Comments at 5, 12, and 15; SACE Initial Comments at 2, 13-14; UNC-CH Initial Comments at 5.

determined by the Commission; provided, however, that the bill credit shall not exceed [the] utility's avoided cost." (emphasis added). Tracking this statutory language, utilizing the energy-only component of avoided costs would remove the capacity portion of avoided costs from the bill credit, allowing that reduction to serve as a proxy for the potential costs associated with long-term forecast risk and the integration costs associated with distributed generation.

2. **GSA-Specific Solicitation:** The Commission could direct Duke to conduct a GSA-specific market solicitation separate from its CPRE solicitation, with the market clearing price (including energy, capacity, and renewable attributes) providing the basis for the bill credit for both market participants and Self-Supply options, assuming sufficient levels of participation.[13] Parties that chose to negotiate under the Self-Supply option would receive a financial benefit if the bundled price they negotiated was below the GSA-specific market clearing price.
3. **Actual Incremental Generation Costs:** Taking an approach similar to that taken by Georgia Power with its REDI C&I initiative, in which the bill credit provided to market participants is based on Georgia Power's actual hourly running cost of incremental generation per kWh, calculated

[13] The use of a GSA-specific solicitation, as opposed to expanding the CPRE solicitation to include the GSA capacity would alleviate potential differences in the products being acquired, as discussed in the Public Staff's initial comments. For example, CPRE projects required to be economically dispatchable, unlike GSA projects. Further, under CPRE Duke plans to utilize grouping studies to evaluate grid upgrade costs, as well as to recover network upgrade costs through future adjustments to general costs of service, rather than assigning the costs to a specific renewable energy facility. Bids received under a GSA-specific solicitation should include those grid upgrade costs.

on a monthly basis. There is no fixed rate, but the fixed formula applies for the entire term of the contract (up to 30 years). The Public Staff notes that the initial offering under the Georgia REDI C&I initiative was fully subscribed.[14]

The Public Staff notes that Apple and Google in their initial comments stated that Duke's pricing and bill credit mechanisms as originally proposed did not provide sufficient transparency or predictability to encourage market participants to participate in the program.[15] They stressed the need for a market participant to be able to determine in advance the overall economics of a particular proposal. Similarly, the statement of position filed by potential GSA business participants stated that the bill credit should "reflect a fair and transparent accounting of the costs avoided by displacing the need for new energy and capacity owned by the utility."[16] The Public Staff acknowledges these concerns, but to the extent the certainty provided to GSA customers comes by increasing the risk to non-participating customers, the Public Staff does not believe that is consistent with the statutory requirement that non-participating customers remain neutral as to the impact of the GSA Program.

Following implementation of the initial GSA Program offering, the Commission may wish to evaluate the levels of participation or feedback received from the market at that time and, in its discretion, may seek to review the

[14] Georgia Commercial & Industrial REDI Initiative. Online at: https://www.georgiapower.com/company/energy-industry/energy-sources/solar-energy/solar/c-and-i-redi.html. Date last accessed: April 19, 2018.
[15] Apple and Google Initial Comments at pp. 4-5.
[16] Perspective of Potential Green Source Advantage Business Participants at. p. 2.

appropriateness of the method used to establish the bill credit. However, the Public Staff notes that the General Assembly already recognized the potential for the program to not be fully allocated, and required in G.S. 62-159.2(d) that if any portion of the 600 MW of capacity provided for in the direct renewable energy procurement program is not awarded prior to the expiration of the program, it would be reallocated to and included in future competitive procurements offered by the utilities pursuant to G.S. 62-110.8(a).

The Public Staff believes that these potential approaches with respect to the bill credit will help to balance the interests of GSA customers with those of non-participating customers, and will help to ensure that the program is implemented in alignment with the overall goals of House Bill 589.

In conclusion, the Public Staff respectfully requests that the Commission consider the issues and other considerations raised in these comments.

Respectfully submitted this the 20th day of April, 2018.

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CERTIFICATE OF SERVICE

I certify that a copy of these Reply 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 20th day of April, 2018.

Electronically submitted
/s/ Tim R. Dodge