STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-2, SUB 1169
DOCKET NO. E-7, SUB 1168

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Joint Petition for Approval of Community Solar Program Plan to Implement N.C. Gen. Stat. § 62-126.8	)))	**INITIAL 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 Community Solar Program Plan* in the above captioned dockets, respectfully submits the following initial comments on the Community Solar Program Plan ("CS Program") and Shared Solar Rider ("SSR") tariffs filed by Duke Energy Carolinas, LLC ("DEC"), and Duke Energy Progress, LLC ("DEP") on January 23, 2018.

Background:

The Distributed Resources Access Act (the "Act"), as enacted by House Bill 589 (S.L. 2017-192) on July 27, 2017, required DEC and DEP (collectively, "Duke," or the "Companies") to each file with the Commission applications for approval of a new program offering retail customers the opportunity to participate in community solar energy facilities ("CS Facilities"). See G.S. 62-126.8. The Act calls for each utility to deploy, on a first-come first-served basis, up to 20 MW of community solar capacity, with subscribers able to participate in and receive benefits from

distributed solar PV resources without having to install, own, or maintain a system of their own. These CS Facilities shall each have a nameplate capacity of no more than 5 MW, and each must offset the energy use of not less than five subscribers, with no single subscriber permitted to have more than 40% interest. Each subscription must be at least 200 W and can supply no more than 100% of the maximum annual peak demand of electricity of each subscriber at the subscriber's premises. The CS Facility must be located in the service territory of the offering utility, and subscribers must be located both in the State of North Carolina and, subject to Commission approval of a locational exemption, within the same county or a county contiguous to where the CS Facility is located. Should the Commission deem the locational exemption specified in G.S. 62-126.8(c) to be in the public interest, the CS Facility may be located up to 75 miles from the county of the subscriber. G.S 62-126.8(d) specifically states that subscribers shall receive a credit for all subscribed shares of energy generated at the avoided cost rate.

G.S. 62-126.8(e) provides that the Commission may approve, disapprove, or modify the CS facility program. The Act further requires that the program plan must: (1) establish uniform standards and processes for cost recovery, (2) be consistent with the public interest, (3) identify required informational disclosures to potential subscribers, (4) provide the program implementation schedule, (5) identify proposed rules and charges, and (6) include a description of how the CS program will be promoted. G.S. 62-126.8(e)(7) states that non-participating customers must be held harmless and G.S. 62-126.8(e)(8) includes a requirement

that subscribers will be given the option to own the Renewable Energy Certificates ("RECs") generated by the CS Facility.

On January 23, 2018, the Companies jointly filed a petition for approval of a proposed CS Program and their respective SSR tariffs (Rider SSR, Shared Solar Rider (NC) for DEC and Shared Solar Rider SSR-3 for DEP). Duke's petition summarized the elements of its proposed CS Program, laid forth their proposed SSR tariffs, and petitioned the Commission to approve the locational exemption specified in G.S. 62-126.8(c). On January 26, 2018, the Commission issued an *Order Establishing Proceeding to Review Proposed Community Solar Program Plan*, initiating a proceeding to review the proposed CS Program Plan for its compliance with G.S. 62-126.8 and Commission Rule R8-72, and to invite interested persons to intervene and provide comments. Initial comments were required on or before March 23, 2018, and reply comments were required on or before April 13, 2018.

On March 19, 2018, the Public Staff filed a Motion for Extension of Time due to the demands of the DEC general rate case, Docket No. E-7, Sub 1146. On March 20, 2018, the Commission issued an *Order Granting Extension of Time*, extending the date for initial comments to April 13, 2018, and for reply comments to May 4, 2018.

I. Upfront Subscription Fees

The Companies propose to charge an upfront fee of $500 for a 220 W subscription. The bill credits expected from one subscription block are estimated

at $21 annually. Both the upfront payment and the annual bill credits will be administered off-bill. While the Public Staff recognizes that Community Solar programs are generally available at a cost premium to subscribers, this particular model of a high upfront fee coupled with off-bill annual credits seems designed to shift all risk from the Companies to the subscribers, at a cost of potentially depressing the levels of customer interest. The Companies' CS Program Plan states that "customer participation in the Program is vital to the Program's success." (CS Program Plan, at p 3).

The estimated $500 upfront subscription fee proposed by the Companies consists of two elements: (i) the present value of all administrative and overhead costs and (ii) the present value of all Power Purchase Agreement ("PPA") payments to the CS Facility for the entire 20 year contract duration. The Public Staff does not believe that it is fair or in the public interest to require subscribers to essentially "prepay" the costs of energy from the CS Facility for 20 years, particularly when the Companies will spread these payments to the CS Facility out over the 20 year PPA duration.

In addition, in materials provided to the Public Staff during discovery, the Companies estimate marketing costs of $537,500 in the first year of the program (per 1 MW CS facility), equating to approximately $135 per subscriber and $538 per kW. A large portion of these costs was estimated to be made up of direct mail expenditures. The Public Staff believes that the Companies should prioritize their marketing expenditures to emphasize those that may be more effective per dollar spent than direct mail (i.e., email blasts or radio adverts). In addition, multiple

intervenors have expressed interest in partnering with the Companies in marketing the CS Program to their members, and the Public Staff recommends that the Companies pursue this avenue further in an attempt to reduce overhead costs of the program.

II. On-bill Credits

The Companies do not intend to offer "on-bill" financing of subscription costs at this time, nor do they intend to include the subscription fee or bill credits on the subscriber's bill. (CS Program Plan, at p 11*)* The Companies state that the reasons they have opted to handle the CS Program entirely outside of the subscriber's bill are to "support quicker implementation of the Program at a lower overall cost."

The Public Staff does not believe that the inability of the Companies to manage on-bill financing or on-bill payments and credits of CS Program fees justifies handling the CS Program entirely off-bill. Allowing customers to avoid the high upfront fees through on-bill financing, or eliminating the upfront fee entirely in favor of monthly, on-bill charges and credits reflecting energy produced by the CS Facility and overhead fees, is likely to increase subscriber interest in the program. As detailed further in Section V, numerous Electric Municipal Cooperatives ("EMCs") have implemented on-bill charges and credits for their CS Programs, which has helped to attract high levels of public interest. It is the Public Staff's belief that directly linking the Community Solar subscription to charges and credits on a subscriber's electricity bill is more likely to encourage subscriber interest and to keep the subscriber committed for the full contract term.

Furthermore, the definition of "subscription" under the Act states that the contract between a subscriber and the owner of a community solar energy facility "allows a subscriber to receive a bill credit for the electricity generated by a community solar energy facility in proportion to the electricity generated." (G.S. 62-126.3(15) (emphasis added)).

III. Transferability and Portability of the Community Solar Subscription

With regard to transferability of subscriptions, Duke states that there is a potential that the "subscription fee could be characterized as an investment in a common enterprise and therefore subject to federal or state securities regulation." The Public Staff understands that, if freely transferable, subscribers may try to sell or otherwise transfer their community solar subscription for a profit, which may make the subscription appear more like a security under the *Howey* test, which is used to determine whether an investment contract is a security subject to regulation.[1]

The Public Staff agrees with Duke that the program should be designed to avoid offering a security which would require compliance with complex regulatory requirements that would likely make the program uneconomic. The Public Staff agrees in general with the Companies' position that there should be limits on the

[1] *SEC v. Howey Co.,* 328 U.S. 293, 301 (1946). The *Howey* test is used to determine whether an investment contract is a security under federal law. ("The test is whether the scheme involves an investment of money in a common enterprise with profits to come solely from the efforts of others. If that test be satisfied, it is immaterial whether the enterprise is speculative or nonspeculative, or whether there is a sale of property with or without intrinsic value.")

transferability of subscriptions to ensure the community solar subscription is not deemed to be a security.

In its program plan, Duke cites to the National Renewable Energy Laboratory Report on Community Shared Solar as support concerning the risk of securities compliance issues.[2] Beyond stating that the community program must be sure to avoid inadvertently offering a security, the report further states:

> In a utility-owned model, in which the utility enters into a contract or arrangement with its retail customer to provide electricity generated by a project, there is a risk that the contract or arrangement could be deemed a security if the customer is required to finance a part of the project and if the customer has an expectation of getting some kind of profit over and above the value of the electricity it receives.
>
> To the extent that a retail customer agrees to purchase solar power from a utility and to pay a specified, generally applicable rate for the solar power used and the customer is billed periodically based on recent past use, just like the arrangements for purchasing other power, it is less likely that the customer would be viewed as making an investment of money in the project. In contrast, if the customer is required to buy a panel or make payments in excess of the retail market rate for the solar power, it is more likely that the customer will be viewed as making an investment of money. Therefore, the utility must take care to ensure that the rate charged for the solar power does not contain a charge for the customer's acquisition of an interest in the project or a panel. In addition, a payment is more likely to be an investment if the customer pays an up-front amount in return for an undetermined amount of solar power over a period of time that may also be undetermined.
>
> In order to reduce the likelihood that the contract is a security, payments made under the contract could be: (1) applicable to a specific, relatively short period of time (e.g., monthly, quarterly); (2) due after solar power is provided; and (3) according to a specified, generally applicable market rate per unit that does not include a component for the purchase by the customer of an interest in the project. To the extent possible, the contract, pricing and billing arrangements, and related materials should resemble a customary consumer purchase of non-solar electricity and should not be marketed to emphasize that the amount of solar power sold to customers depends on the participation of other customers or the success of the utility in obtaining

[2] See page 13, footnote 5 of the DEP and DEC Joint Petition for Approval of Community Solar Program Plan (January 23, 2018).

subscribing customers or in operating the project. The corollary is that customer dollars cannot be used up front to finance the project.[3]

From this report, it appears that there are additional steps that could be taken to design the program to reduce the risk that the subscriptions will be deemed a security and subject to securities regulation. Those steps include the following: monthly or quarterly payments; making payments due after electricity is generated; and marketing the program in a way which emphasizes that the subscriber's primary interest in the shared community solar project is the energy generated and not in producing a profit by investing in the subscription. The Public Staff would like to consider this issue further and plans to make additional comments on transferability in the reply comments to this docket.

With regard to portability, the Companies propose that if a subscriber relocates and leaves the county or contiguous county (or the 75-mile radius of the site, if the locational exemption is granted), the Companies will continue to provide the subscription credits to the subscriber, regardless of the subscriber's new location. The Act specifically states that the offering utility shall file a program plan for "participation by its retail customers" and "[s]ubscribers shall be located in the State of North Carolina and the same county or a county contiguous to where the facility is located." (G.S. 62-126.8(a), (c)) The Public Staff believes it is inconsistent with the plain language of the Act to allow community solar subscribers to continue to receive credits if they move outside the State or outside the county or a county

[3] National Renewable Energy Laboratory, A Guide to Community Shared Solar: Utility, Private, and Nonprofit Development, available at https://www.nrel.gov/docs/fy12osti/54570.pdf, at 46.

contiguous to a community solar energy facility. If a subscriber leaves the county, the county contiguous, the 75 mile radius, if applicable, of the community solar facility, or is no longer a retail customer of the utility, the Public Staff supports a mechanism to allow for a subscriber to cancel the subscription and receive a pro rata share of any fee returned based on the size of the subscription or to transfer the subscription to another eligible subscriber. EMCs have designed such programs as described further in Section V. The Public Staff further recommends that the Companies design the program to take steps to remarket unsubscribed or cancelled shares of the CS facility.

IV. Customer Option to Retain RECs

As outlined in the SSR tariffs filed with the program plan, the Companies intend to retire the RECs produced by the CS Facility on behalf of the subscribers. This has been identified by the Companies as “best practice” in community solar programs, and (i) enables the subscriber to claim ownership of the environmental attributes of the CS Program, and (ii) will result in lower administrative costs.

While the Public Staff generally agrees with the Companies that the value of RECs produced by a single CS Subscription is essentially immaterial, G.S. 62-126.8(e)(8), Commission Rule R8-72(c)(1)(ix), and Commission Rule R8-65(g)(iii)(h), specifically require that subscribers to the CS Program must be allowed the option of owning the RECs produced by the CS Facility. Therefore, the Public Staff recommends the Commission require that the Companies modify their SSR tariff to indicate that the subscriber may elect to own any RECs produced by their subscription, provided that the subscriber initiate all necessary applications

and pay all applicable fees to create a REC tracking account with a system such as NC Renewable Energy Tracking System ("NC-RETS"). The subscriber should also be responsible to pay any fees required to transfer the RECs from the CS Facility's NC-RETS account to the subscriber's chosen REC tracking account. Faced with these additional fees, the Public Staff understands that most subscribers will opt to have the utility retire the RECs on their behalf. However, the requirements of the Act and Commission Rules governing the CS Program will be satisfied by providing interested subscribers the option to own their share of RECs produced by the CS Facility.

V. Comparison to EMC Community Solar Programs

During its evaluation of the Companies' proposed CS Program, the Public Staff contacted multiple EMCs to discuss their CS Programs.[4] While the scale of the EMC programs are generally smaller than the Companies' proposed 1 MW facilities,[5] the structure of these programs can provide insight into what features may contribute to the success of a CS Program.

While some EMCs have upfront fees, the most successful programs (by subscription rate) charge a minimal or no upfront fee, and instead recover the PPA and overhead costs through a monthly, on-bill fee. The bill credits for each subscriber's prorated shared of the CS Facility output is also handled on-bill,

[4] Community Solar programs were investigated in the following EMC territories: Blue Ridge Energy, Piedmont EMC, Randolph EMC, Roanoke EMC, Brunswick EMC, Cape Hatteras EMC, Central EMC, Pee Dee EMC, and Walton EMC (Georgia). Research included investigating program offerings and speaking directly with program administrators.

[5] CS Facilities range from 50 kW (Cape Hatteras EMC) to 478 kW (Blue Ridge Energy) to 3.5 MW (Walton EMC, Georgia).

allowing the CS Subscriber to plainly see how their subscription impacts their electricity bill. For example, Blue Ridge Energy EMC has a 478 kW system that was fully subscribed in one year. The monthly fee of $4.50 covers the cost of the PPA and overhead fees, while the estimated monthly bill credit is $2.34 at avoided cost rates, leaving the subscriber with a $2.16 monthly premium per 325 watt CS subscription.

EMCs operating CS programs under the monthly payment model require little or no up-front commitment from subscribers; should a subscriber wish to leave the program, the EMC simply remarkets their subscription to other members. Even those with upfront payments typically allow a customer to leave the program early, while refunding some portion of the upfront fee to the original subscriber and remarketing the subscription with a discount to new subscribers.[6]

In speaking with EMC Community Solar program administrators, they have indicated that on-bill payments and credits, and shifting as much cost as possible to a monthly fee, from an upfront fee, helped raise and maintain interest in the CS program. It should be noted that every EMC CS program studied charges a premium for the CS program, even the few who provided retail credits to subscribers.

[6] Of the EMCs that have upfront fees (Pee Dee EMC, Cape Hatteras EC, Brunswick EMC, Roanoke EMC, and Randolph EMC), all offer “re-sale” programs, where a subscriber can sell the output of their panel back to the EMC and receive back a prorated share of their upfront fee.

VI. Locational Exemption

In their CS Program application, the Companies request an exemption from the same/contiguous county requirement of G.S. 62-126.8(c), as allowed for in Commission Rule R8-72(e)(4). The Companies "believe the Program has the best chance of success if it is marketed in or near urban areas, where more potential subscribers are located, while having the flexibility to site projects within a large enough area nearby to those urban locations to permit lower development costs." (CS Program Plan, at p 6)

The Public Staff agrees with the Companies' proposed exemption, finding persuasive the argument that it will help lower costs and increase subscription interest. In addition, the Public Staff believes that it is in the public interest to grant this exemption for the initial community solar offering, as the CS Program as a whole has the highest chance of success if the initial offering is successful. Therefore, the Public Staff recommends the exemption request be granted for the initial offering and that future exemption requests be evaluated on an individual basis.

VII. Program Cancellation

The Companies indicate that "if subscriptions are insufficient to cover the costs of the Program in either or both service territories, DEC and/or DEP may petition the Commission to discontinue the Program." (CS Program Plan, at p 12) The Public Staff believes that any such request may be contrary to G.S. 62-126.8(a), which mandates that each offering utility shall make its CS program available until the total nameplate generating capacity equals 20 MW. Because the

Act does not include a provision allowing the offering utility to cancel the program due to low subscriber interest, the Public Staff believes that it is the responsibility of the utility to create and market a program that is fundamentally designed to succeed. The Public Staff does support a delay in the program if a specific and reasonable target for subscriber interest is not met in tranche 1 and the Companies have attempted to scale the project as discussed in Section VIII below.

VIII. Project Scalability

The initial CS Program Plans seek to offer two, one-MW facilities (one in DEP and one in DEC), with no mention of the potential of scaling the projects to meet customer interest. The Public Staff believes that it may be in the public interest to scale the projects to the appropriate sizes to meet demand, either by increasing or decreasing the capacity, after the initial marketing period. The Public Staff also notes that there is currently no threshold at which a project would be considered to have enough subscribers to continue, and that it would be appropriate to move forward with the project once the reserved capacity reaches a certain point.

IX. Recovery of Costs

The CS Program Plan states on page 12 "[i]f the program is canceled by the Commission, and there are no subscribers to pay these costs, the Companies plan to seek recovery of administrative costs incurred in promoting and developing the Program in its next general base rate case." The Public Staff believes that it is premature to determine cost recovery for the program in this proceeding. The Public Staff notes the language in G.S. 62-126.8(e)(7) states the program is

required to "[h]old harmless customers of the electric public utility who do not subscribe to a community solar energy facility." If a determination is made at this time as to whether or not the Companies will be able to recover costs in general base rates, the Company may not be properly incentivized to implement a program that is designed to succeed.

Summary:

In conclusion, the Public Staff respectfully requests that the Commission consider the issues and other considerations raised in these comments. The Public Staff will continue to work with the Companies in an effort to resolve the concerns raised in these comments.

Respectfully submitted this the 13th day of April, 2018.

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CERTIFICATE OF SERVICE

I certify that a copy of these Initial 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 13th day of April, 2018.

Electronically submitted
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