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		
Petition of Duke Energy Progress, LLC,	)	
and Duke Energy Carolinas, LLC,	)	ORDER APPROVING REVISED
Requesting Approval of	)	COMMUNITY SOLAR PROGRAM
Community Solar Program Plan	)	PLAN AND RIDERS
Pursuant to N.C.G.S. § 62-126.8	)	

BY THE COMMISSION: On July 27, 2017, the Governor signed into law House Bill 589 (S.L. 2017-192). Part VI of House Bill 589, added a new article 6B to Chapter 62 of the General Statutes, the Distributed Resources Access Act (Act). Part of the Act, codified at N.C. Gen. Stat. § 62-126.8, requires Duke Energy Progress, LLC (DEP), and Duke Energy Carolinas, LLC (DEC) (together, Duke), to file for Commission approval a plan to offer a Community Solar Energy Program, through which Duke's retail customers could voluntarily participate in and receive benefits from distributed solar photovoltaic (PV) resources without having to install, own, or maintain a PV system of their own. Pursuant to N.C. Gen. Stat. § 62-126.10, the Commission is directed to adopt rules to implement the provisions of the Act, including the following requirements applicable to the Community Solar Program:

(1) Establish uniform standards and processes for the community solar energy facilities that allow the electric public utility to recover reasonable interconnection costs, administrative costs, fixed costs, and variable costs associated with each community solar energy facility, including purchase expenses if a power purchase agreement is elected as the method of energy procurement by the offering utility;

(2) Be consistent with the public interest;

(3) Identify the information that must be provided to potential subscribers to ensure fair disclosure of future costs and benefits of subscriptions;

(4) Include a program implementation schedule;

(5) Identify all proposed rules and charges;

(6) Describe how the program will be promoted;

(7) Hold harmless customers of the electric public utility who do not subscribe to a community solar energy facility; and

(8) Allow subscribers to have the option to own the renewable energy certificates produced by the community solar energy facility.

N.C.G.S. § 62-126.8(e)(1)-(8).

On December 19, 2017, in Docket No. E-100, Sub 155, after receiving comments and proposed rules from Duke, the Public Staff, and other parties, the Commission issued an Order adopting Commission Rule R8-72. That Rule sets out the filing, reporting, and other program requirements, provides for a mechanism through which the Commission can annually review the program's success or evaluate potential program changes, and clarifies that Program participants will be able to avail themselves of the Commission's existing consumer complaint process in the event that a dispute arises over billing, service, or program administration.

On January 23, 2018, Duke filed a petition for approval of its Community Solar Program Plan, DEC's Shared Solar Rider SSR, and DEP's Shared Solar Rider SSR-3. Included in the petition are examples of communication materials intended for use by Duke in marketing the Community Solar Program.

On January 26, 2018, the Commission issued an Order establishing these proceedings to review Duke's proposed Community Solar Program Plan, allowing for intervention by interested persons, and setting a schedule for the filing of comments and reply comments.

The following filed petitions to intervene, which were granted by orders subsequently issued in these proceedings: North Carolina Sustainable Energy Association (NCSEA), the Sierra Club, and North Carolina Waste Awareness and Reduction Network (NC WARN).

On April 13, 2018, the Public Staff, NC WARN, NCSEA, and the Sierra Club filed comments.

On June 4, 2018, Duke filed its reply comments.

Also on June 4, 2018, the Public Staff filed a Motion requesting leave for the parties to file additional reply comments, which was granted by Commission Order issued on June 5, 2018.

On June 25, 2018, the Public Staff, NCSEA, NC WARN, and the Sierra Club filed additional reply comments.[1]

On or after June 26, 2018, the Commission received three consumer statements of position, expressing the view that Duke's Community Solar Program Plan, as proposed, will not be successful due to its design as a premium product for consumers, rather than one that presented opportunities for cost savings.

On July 16, 2018, Duke filed its additional reply comments.

DUKE'S PETITION FOR APPROVAL OF COMMUNITY SOLAR PROGRAM PLAN

In its petition, Duke argues that its proposed Community Solar Program and Shared Solar Rider,[2] satisfy the objectives and requirements of N.C.G.S. § 62-126.8. In support of its petition, Duke states that it "diligently researched the best practices of other community solar programs, discussed the scope of the Program with and solicited input from interested parties … and surveyed Duke Energy customers to gauge potential interest in participation" prior to filing its proposed Program. Duke asserts that the Program's purpose as a means by which "to expand the access to solar power to those retail customers that want to support the development and integration of solar power in North Carolina, but who have been unable or do not wish to do so because they cannot host on-site PV systems on their roofs." Duke contends that it designed its Program in a manner that minimizes costs, while maximizing the benefits, of subscription. Included with its petition is Duke's request that the Commission grant an exemption to the requirement of N.C.G.S. § 62-126.8(c) that community solar energy facilities in both DEC and DEP service be located in the same county, or a contiguous county, as the subscribers to that community solar energy facility. The Commission is granted authority pursuant to N.C.G.S. § 62-126.8(c) to allow such an exemption for facilities located within 75 miles from the county where subscribers are located. Also included as attachments to Duke's petition are radio advertisements and website images that Duke proses to use in marketing the Program.

In its petition, Duke argues that due to the statutory prohibition against subsidization of Program costs by non-participating ratepayers, partnerships with interested local communities and organizations will be critical to minimizing program costs. Although Duke's customer survey research indicates that "certain customers are inclined to support developing shared solar resources" by participating in the program, Duke states that it remains to be seen whether the Program "is attractive to a sufficient number of customers if the Program does not guarantee any savings over time." For this

[1] On July 23, 2018, the Sierra Club filed a letter of clarification, stating that its recommendation contained in its reply comments that Duke "not accept bids above the…avoided cost rate" was "intended to recommend capping only the <u>PPA price</u> at avoided cost" (emphasis in original).

[2] There appear to be no substantive differences between DEC's Shared Solar Rider SSR and DEP's Shared Solar Rider SSR-3. The Commission will, therefore, refer singularly to those Riders in this Order.

reason, Duke proposes a gradual rollout of its Program in tranches involving relatively small facilities, in order to allow the Company to implement lessons learned, and to modify the Program accordingly, depending on the success of prior tranches. To that end, Duke's petition contains only the proposed design for Tranche 1 of the Program.

The following summarizes the key components of Duke's proposed design for Tranche 1 of the Program, as detailed in Duke's petition:

- Tranche 1 Procurement and Implementation Plan: Duke intends to procure solar energy for Tranche 1 of the Program through power purchase agreements (PPAs) with "qualifying small power production facilities,"[3] totaling approximately 1 MW of capacity[4] each for DEC and DEP, with the goal of achieving commercial operation for Tranche 1 facilities in 2020 or 2021. Prior to entering into a PPA, Duke states that it will engage with internal and external stakeholder channels in an effort to identify a viable project, to include "locations that could facilitate both lower solar costs and, potentially, subscribers willing to commit to larger subscriptions as a way to lower projected marketing expenses." Next, Duke proposes to conduct a request for proposal (RFP) and finalize and launch the marketing effort for the program. Within sixty to ninety days following the marketing launch, Duke will make a determination regarding sufficiency of apparent consumer interest in the program. If Duke determines interest to be insufficient, it states that it may petition the Commission to authorize a delay, suspension, or closure of the program. If Duke determine interest to be sufficient, on the other hand, the Companies will proceed with processing initial subscriber payments and executing the PPA(s) during the ninety to one hundred and twenty days following the launch of the program marketing efforts.

- Availability and Participation: Duke proposes that the program be available for voluntary participation on a first-come, first-served basis for DEC or DEP residential and nonresidential retail customers who are not served under a net metering rider or power purchase agreement, and who are located in a geographic area 1) within 75 miles from the from the solar energy facility (or 75 miles from the county in which the solar energy facility is located, if the Commission allows Duke's request for an exemption of the Same/Contiguous County Requirement set forth in N.C.G.S. § 62-126.8(c)); 2) wherein Duke has pre-determined sufficient customer interest in the Program exists;

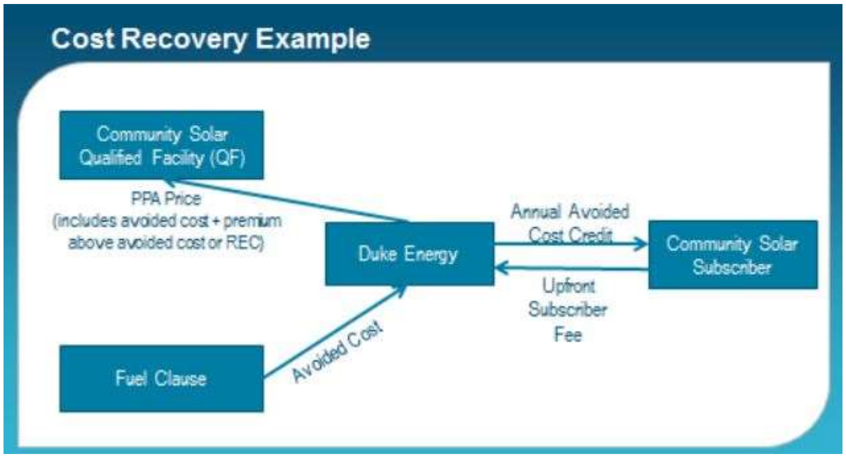
[3] Although Duke proposes to procure solar energy for the Program through PPAs with "qualifying small power production facilities, as defined in 16 U.S.C. § 796," Joint Petition of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC, at 5, In re: Petition for Approval of Community Solar Program, Docket Nos. E-2, Sub 1169 and E-7, Sub 1168 (N.C.U.C. filed Jan. 23, 2018), Duke does not otherwise suggest or imply that the electric generating facilities involved in the Community Solar Program would use a technology other than solar photovoltaic (PV) to generate electricity. The Commission, therefore, will disregard the reference to the term "qualifying small power production facilities," which includes many technologies other than solar PV that can be used to generate electricity, and proceed to review Duke's petition and comments as embracing the deployment of only "community solar energy facilities," as that term is defined in N.C.G.S. § 62-126.3(3), within the Community Solar Program.

[4] Duke will consider a facility's nameplate capacity to be its continuous rated power output, meaning "the facility's designed and intended maximum continuous output capability, measured in watts, at the facility's point of interconnection with the distribution or transmission system."

and 3) where at least 4 additional and otherwise-eligible subscribing customers are located. No subscriber will be eligible to subscribe to greater than 100% of the maximum annual peak demand of electricity at the subscriber's premises. In addition, no single subscriber will be eligible to subscribe to greater than 40% of the total capacity of the subscription blocks available at any one community solar energy facility, with each subscription block representing 220 watts (W) of solar energy capacity and projected to produce a fixed amount of 35 kilowatt hours (kWh) of energy for the duration of the Program.

- Program Costs and Cost Recovery: Duke proposes that the solar PV facility (QF) with which Duke will execute PPAs to implement Tranche 1 of the Program pay for all reasonable interconnection costs through interconnection fees. Duke further proposes that subscribers pay administrative costs, such as marketing, billing, and program management expenses, through the subscription fee. In addition, Duke proposes that subscribers pay for the renewable energy credits (RECs) from the program's purchased power through the subscription fee. In return, Duke proposes that subscribers receive an bill credit that is based on each utility's avoided cost rates utilizing the methodology most recently approved by the Commission at such time as the Program is open to subscriptions. Finally, Duke proposes that the energy generated by the community solar energy facility be put to the grid and that the total delivered costs, including capacity and non-capacity costs associated with the purchased power, be recovered pursuant to N.C.G.S. § 62-133.2(a1)(10) from all customers utilizing the same methodology applied to other [QF] purchases." However, in the event that the amount of subscriptions are insufficient to cover Program costs, and the Commission consequently allows Duke to cancel the Program, Duke plans to seek recovery of administrative costs incurred in promoting and developing the Program in its next general base rate case. In support of this contingency plan, Duke argues that such course of action would be appropriate given the statutory mandate that the Companies develop the program. In addition, the Companies point out that such a request would be subject to a reasonableness and prudence review by the Commission, as would be the case with other costs recovered pursuant to N.C.G.S. 62-133.

Duke provides the following diagram to illustrate the bill credit and cost recovery structure of its proposed Community Solar Program:



In support of its proposed bill credit and cost recovery structure, Duke states that the proposal is compliant with the requirement of N.C.G.S. § 62-126.8(e)(7) that non-subscribing customers be held harmless from Community Solar Program costs. In support of its statement, Duke argues that recovering through the fuel clause no more than the avoided cost component of the purchased power that is delivered to the grid holds non-participants harmless because the costs being recovered are "avoided costs," which, for purposes of implementing the Community Solar Program, represent costs that the non-participants would have paid for the same amount of power in the absence of the PPA.

Duke states that, to make the program viable, each MW of community solar capacity, will require 4300 subscription blocks to be subscribed within the location parameters mandated by N.C.G.S. § 62-126.8(c) (subject to modification if the Commission allows Duke's request for an exemption from the location requirement of N.C.G.S. § 62-126.8(e)). Duke argues that due to the statutory requirement that non-subscribing customers be held harmless, it may be challenging to attract "a sufficient number of customers who will be both (i) committed to paying a premium for their electric power to promote the development of solar energy and (ii) located within one county, a contiguous county or within 75 miles of the facility." Duke, therefore, opines that "a robust marketing effort will be necessary," and projects marketing costs for the implementation of Tranche 1 at $860,000 for DEC and DEP combined. Duke states that it intends to use a combination of the following methods, to market the Program: digital and printed communications through the Duke Energy website, email, press releases, newsletters, social media, direct mail, webinars, [and] internal and external stakeholders.

In its comments, Duke also provides a number of ways in which they will seek to minimize Program costs, including 1) encouraging solar developers to partner with entities that may donate brownfields or other land for the facilities; 2) engaging and educating customers about the program; 3) employing lessons learned from Tranche 1 of the Community Solar Program to decrease costs of future tranches; and 4) utilizing partnerships with external organizations. Duke also observes that projected PPA and marketing expenses are the most variable program costs, and make up the majority of the program costs. As a result, if Duke is able to successfully lessen some Program costs as described herein, particularly with regard to PPA and marketing costs, then the subscription fee should decrease accordingly.

- Subscription Fee, Terms, and Bill Credit: The Companies propose to charge an upfront subscription fee for Tranche 1, arguing that an upfront charge lowers administrative costs, simplifies Duke's management and oversight of the Program, and "mitigates the administrative burden and costs of having DEC and DEP employees receiving, accounting for, and tracking multiple and ongoing subscriber payments and cash transactions." Payment of the upfront subscription fee entitles the subscriber to one subscription block of community solar, with an energy amount of 35 kWh per month, for a 20-year term.

The Companies state that they do not as of yet know the exact amount of the subscription fee because "[e]ach solar energy facility may present varying circumstances, and, therefore, the Companies cannot precisely project the amount of the costs that will make up the subscription fee at this time." However, the Companies estimate that a reasonable PPA price for a project with the characteristics of a Tranche 1 community solar energy facility is $65/MWh. Consequently, and assuming a PPA price of $65/MWh, the Companies project an upfront subscription fee in the amount of $500 per subscription block of community solar. The Companies provide the following as a breakdown of projected estimated costs comprising the subscription fee charge:

Cost Category	Projected Estimated Costs
PPA @ approximately $65/MWh	$284
Marketing and Customer Engagement	$131
Enrollment / Billing / Credit	$37
Call Center	$9
Program Management	$39
TOTAL	$500

Assuming a bill credit to the subscriber based upon current avoided cost rates at the time the program is opened to subscriptions, the subscriber's credit would amount to $420 over the duration of the 20-year subscription term, meaning that the Program will involve payment of a premium in addition to a subscriber's normal retail rates. Duke further proposes that the bill credit will consist of a fixed annual payment for the duration of the program. In addition to the annual bill credit, "subscribers to Tranche 1 will have the ability to indicate they are participating in a renewable energy program through the retirement of the associated REC." Under Duke's proposal, neither the payment of the subscription fee, nor the annual fixed payment bill credit, will appear on a subscriber's bill. Instead, Duke proposes to manage "credits and charges outside of the billing system" in order to allow "quicker implementation of the Program at a lower overall cost." Similarly, the Companies "also do not intend to offer 'on-bill' financing of subscription costs to subscribers at this time," on the grounds that on-bill financing would increase administrative costs, in turn increasing the subscription fee.

As proposed, subscribers would pay the cost of the RECs produced by the community solar facilities through their subscription fees. Duke states that this has been described as a "best practice" in community solar programs, and cites to decision of the Michigan Public Service Commission in support thereof.[5] In addition, Duke argues that this practice would result in lower administrative costs and is otherwise appropriate "given that it will take more than two years for one subscription block of the community solar energy facility to produce a REC, which results in the block's REC value being immaterial for the majority of subscribers for the first few years" of the Community Solar Program.

If a customer moves from the premises first used to establish Program eligibility, Duke proposes to continue provide annual fixed payments to the customer, regardless of the location of the customer's new premises. In support of this plan, Duke states that this would result in no additional administrative costs and that it will help make the Program more attractive "[c]onsidering that customers rarely live in one place for 20 years." As for subscription transferability, the Companies point out that they must be "mindful of the potential risk that the subscription fee could be characterized as an investment in a common enterprise and therefore subject to federal or state securities regulation." However, given the length of the subscription term, Duke proposes to allow each subscriber the option of designating a beneficiary of the subscription and to permit transfer of a subscription from the original subscriber to their designated beneficiary only in cases where an unforeseen event, such as death or divorce, adversely impacts the original subscriber's ability to receive payments under the Program.

Duke notes that it will be the subscriber's responsibility to designate a beneficiary at the time of subscription, and that this information will be provided to subscribers when they apply to participate in the program. In addition, Duke will provide subscribers, at the time of program subscription, with information about 1) how to access a copy of Commission Rule R8-72 via the Commission's website; and 2) the process through which they may file a consumer complaint with the Commission pursuant to N.C.G.S. § 62-73 and Commission Rule R1-9.

- Process for Subscribing: Throughout all steps of the process, Duke states that it will provide "status updates by email regarding the status of the Program project, including the date of the solar facility site's energization and ribbon cutting." Once the

[5] See Opinion and Order, Case No. U-17752, Mich. Pub. Serv. Comm'n., issued on June 9, 2016, at 1-2.

community solar energy facility comes online, subscribers also "will be able to track their Project's output through an online portal." The Companies contemplate the following subscription process:

- Step 1 – Prospective subscriber learns about the Program as a result of the Companies' customer engagement and marketing efforts.

- Step 2 – Prospective subscriber visits Duke's website or otherwise makes contact with Duke to learn more about the Program.

- Step 3 – Once a decision has been made to subscribe, the prospective subscriber completes and submits an online form and provides payment information.

- Step 4 – If the Companies already have determined that sufficient subscriber interest exists to move forward with the community solar energy facility for which the prospective subscriber has applied, Duke will collect from the subscriber $200 as payment for the first of two installments of the upfront subscription fee. If the Companies have not yet determined that sufficient subscriber interest exists to move forward with the community solar energy facility for which the prospective subscriber has applied, the prospective subscriber will receive notice at such time as Duke decides to proceed with the facility; the subscriber then will have one week from the notification date to cancel their application at no charge before Duke collects the $200 first installment of the upfront subscription fee from the payment information provided by the subscriber at the time of application.

- Step 5 – After Duke executes the PPAs for the community solar facilities in each service territory, the Companies will charge each subscriber the second installment of the upfront subscription fee.

- Step 6 – Once annually after the applicable solar energy facility comes online, each subscriber will receive a fixed payment in lieu of an on-bill credit, based on the utility's avoided cost rates using the methodology most recently approved by the Commission at the time the Program is opened for subscriptions.

In addition to requesting approval of its proposed Community Solar Program Plan, Duke also requests that the Commission allow an exemption from the Same/Contiguous County Requirement codified as N.C.G.S. § 62-126.8(c). In support of this request, Duke argues that "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." The Companies further argue that such exemption is in the public interest because "customer participation is vital to the Program's success," and the requested exemption would allow the Companies to "target their Program marketing efforts at the widest possible audience, and seek development opportunities in locations that minimize upfront cost of subscription, thereby attracting more subscribers and increasing the Program's chances of success." Pursuant to N.C.G.S. § 62-126.8(c) and Commission Rule R8-72(e)(4), the Companies, therefore, request that the Commission approve an exemption from the Same/Contiguous County Requirement, such that a community solar energy facility may be located up to 75 miles from the county in which a subscriber lives.

SUMMARY OF THE OTHER PARTIES' COMMENTS

NCSEA

In response to Duke's proposal of a cost-premium rather than cost-savings program, NCSEA states that Duke did not explore "whether either shorter (i.e., 10 or 15-year) or longer (i.e., 25-year) subscriptions would be more cost effective, or generate a return on investment, for program participants." Because Commission Rule R8-72(c)(1)(x) requires Duke to provide, in part, the "estimated time period for a subscriber to receive a return on investment," NCSEA contends that "[b]y not presenting an analysis of longer or shorter subscription lengths, it is unclear if Duke fully explored the time period necessary for participants to receive a return on investment." Similarly, NCSEA contends that Duke provided no explanation for its selection of 1-MW facilities and whether or not it explored smaller or larger facilities instead.

While NCSEA supports the Companies' request for an exemption from the same-county/contiguous requirement, it recommends that if the Commission grants such exemption, "the Commission should require Duke to include a summary of how the exemption did or did not minimize costs to program participants" in its annual reports to the Commission.

Although NCSEA supports Duke's proposal to collect subscription fees in two installment payments, it expresses concern that "the lack of clarity about the full subscription fee" in Duke's proposed tariffs "could discourage customer participation due to the uncertainty around how much the full subscription fee will ultimately cost." To alleviate this concern, NCSEA suggests that the Commission require Duke to state a maximum

Sierra Club

The Sierra Club contends that there are a number of deficiencies in Duke's proposed Program Plan. First, the Sierra Club notes that although Duke projects that Tranche 1's community solar energy facilities could achieve commercial operation by 2020-2021, Duke's Program Plan "fails to provide an adequate [Community Solar Program] implementation schedule as required by H.B. 589 and Commission Rule R8-72." The Sierra Club states that its concern regarding "Duke's potential delay of the community solar program is amplified by the delay Sierra Club observed in South Carolina, where Duke has delayed multiple times a community solar program established through state legislation."

Also of particular concern, according to the Sierra Club, are (1) the high upfront subscription fee instead of ongoing monthly payment plans or financing options; (2) the fact that Duke's Program Plan does not forecast any economic benefit to subscribing customers over a 20-year period; (3) Duke's proposed bill credit is on an off-bill, annual basis, which the Sierra Club contends may "inadvertently trigger federal or state securities laws and/or … create taxable income for participants"; and (4) that Duke "has failed to adequately evaluate opportunities for low-to-moderate income customer participation."

The Sierra Club contends that one way to reduce the upfront subscription fee would be for Duke "to substantially reduce both the PPA price and proposed marketing and administrative costs," which the Sierra Club contends are higher than similar costs for other community solar programs. To illustrate this point, the Sierra Club states that Duke's proposed marketing and administrative cost budgets together amount to over 43% of the total subscription price. In addition, the Sierra Club contends that Duke's marketing analysis "fails to account for customers who may subscribe to multiple community solar blocks, thereby decreasing the customer acquisition cost per block, and it does not consider the present value of marketing efforts that may reach customers who subscribes to the community solar program in future Tranches." Along those lines, the Sierra Club states that it is likely that Tranche 1 customers may ultimately "subsidize future community solar subscribers whose subscription (sic) costs are lower due to decreased marketing needs." The Sierra Club argues that "[a] lower-cost community solar program that minimized costs and maximized benefits would provide a net benefit to subscribers, would be more attractive to customers, and would be easier to market." Finally, the Sierra Club pledges that if Duke's program offering is one that the Sierra Club can support, it "would consider assisting Duke in the promotion of the community solar program in hopes of decreasing program costs for subscribers."

The Sierra Club contends that one way to improve economies of scale, and, thus, improve the program's economics for subscribers, would be to procure energy as a carve-out of a larger project, allocating only a percentage of a larger facility's output to use as a community solar energy facility. In addition, the Sierra Club suggests that Duke should "thoroughly evaluate opportunities to contract with a solar energy facility that is already in the interconnection queue and that will achieve commercial operation earlier than Duke's estimated date of 2020 or 2021."

To address its concerns as enumerated above, the Sierra Club requests that (1) Duke be required to submit a revised Program Plan after obtaining stakeholder input; (2) Duke "be required to demonstrate that it has diligently sought out the lowest feasible PPA price"; (3) Duke "be required to demonstrate to the Commission that its PPA procurement plan will minimize costs and maximize benefits for community solar subscribers, and receive Commission approval, before signing its Tranche 1 PPAs;[6] (4) Duke "be required to establish a marketing plan that will minimize costs and that will more closely align with community solar marketing costs of other community solar

[6] To that end, the Sierra Club requests that the Commission provide an expedited review of the proposed PPA in order to ensure that the implementation of Tranche 1 is not delayed.

offerings;" (5) Duke be required to provide an on-bill credit mechanism for Tranche 1; and (6) initially include a 5% carve-out of the program for LMI customers,[7] "consider ways to coordinate LMI community solar efforts with low-income energy efficiency programs," be required "to further evaluate additional LMI program components" such as solar developer donations, non-LMI subscriber donations, federal funding opportunities, and applying for revenue from voluntary utility bill roundup programs to assist LMI customers who may be otherwise unable to participate in the program.

While the Sierra Club does not object to Duke's proposed avoided cost credit, it notes that future circumstances could arise in which reconsideration of Duke's proposed avoided cost methodology may be warranted. In addition, while the Sierra Club does not necessarily disagree with the reasoning underlying Duke's request for an exemption from the location requirements of N.C.G.S. § 62-126.8(c), it contends that such request is "premature" and "recommends that Duke be required to demonstrate that the exemption will result in a net decrease in subscription costs" before the Commission approves such a request. Furthermore, while the Sierra Club generally does not oppose Duke's proposed program provisions regarding portability and transferability, it "recommends that customers moving outside of Duke's service territory also have the option to transfer their subscription to another customer."

NC WARN

NC WARN argues that while some provisions of the Companies' proposal satisfy some of "the most important criteria for successful community solar programs," as published by the Interstate Renewable Energy Council and the Southern Environmental Law Center,[8] many components do not. First, NC WARN contends that Duke's Community Solar Program should ensure through minimization of program costs that customers earn a return on investment by way of savings on future electric bills. To minimize Duke's projected marketing costs, for example, NC WARN recommends that "the Companies should be limited to using existing lines of communication with customers (bill inserts, website, social media) for which the incremental cost of adding community solar promotion would be minimal," and further that "[m]ore expensive marketing such as television, radio, and newspaper advertising should be allowed only if the costs can be absorbed under existing advertising budgets that may be recovered from rates or shareholders." In addition, NC WARN suggests that the Companies partner with clean energy NGOs, local government agencies, and faith organizations to promote the program.

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[7] Any portion of the carve-out not subscribed would be eligible for reallocation into the general community solar program, according to the Sierra Club.

[8] See "Shared Renewable Energy Scorecard," Interstate Renewable Energy Council, available at https://sharedrenewablesscorecard.org/ (last accessed on January 8, 2019); "Community Solar: Best Practices for Utilities in the South," Southern Environmental Law Center, available at https://www.southernenvironment.org/uploads/publications/CommSolar_Utility_Best_Practices.PDF (last accessed on January 8, 2019).

NC WARN further argues that the Companies' proposal should be modified as follows: (1) the first upfront subscription fee installment payment should be lowered from $200 to $75; (2) flexible payment plans should be offered to accommodate participation by low- and moderate-income customers;[9] (3) Duke "should not be permitted to discontinue the community solar program nor recover costs in a rate case;" and, further, if Tranche 1 is not fully subscribed, Duke "should instead seek approval to amend the Program in a way that increases the benefit to participants so that more subscribers are attracted to the Program;" (4) Duke should provide a program implementation schedule beyond that which they have provided from Tranche 1 only; (5) on-bill credits, rather than separate off-bill payments to program participants, should be required; (6) bill credits should be increased, but not decreased, over time as the avoided cost rate changes; and (7) low-cost sites for community energy solar facilities should be selected.

Finally, NC WARN agrees with the Companies' request for an exemption from the same-county/contiguous requirement.

The Public Staff

By its reply comments, the Public Staff states that it reviewed Duke's petition for approval of the Companies' proposed Community Solar Program, in addition to the requirements of N.C.G.S. § 62-126.8 and Commission Rule R8-72. The Public Staff highlights the following issues for the Commission's attention:

- Upfront subscription fees: The Public Staff states that Duke's proposed Community Solar Program involves an upfront fee of $500 per 220 W subscription block, in exchange for an estimated off-bill credit of $21 annually. The Public Staff states that while it "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," which, in turn, could jeopardize the program's success. In support of its position, the Public Staff notes that the upfront subscription fee consists of the present value of both all program administrative and overhead costs and the PPA payments to the facility for the entire 20-year contract term. In short, the Public Staff argues that it would not be fair or in the public interest to require subscribers to prepay the costs of energy from the community solar energy facility for 20 years, when Duke will spread these payments to the community solar energy facility out over the 20 year PPA duration.

- Proposed advertising and administrative costs: The Public Staff states that, based on information exchanged during discovery, Duke estimates that the Community Solar Program's first-year marketing costs will amount to $537,500 for each 1 MW community solar energy facility, a large portion of which Duke proposes to spend on direct mail advertisements. The Public Staff further states that this proposed marketing budget

[9] NC WARN lists Tucson Electric Power's Bright Tucson Community Solar Program and the community solar program offered by South Carolina Gas & Electric as two examples of community solar programs who have successfully implemented this practice.

equates to approximately $135 per subscriber and $538 per kW. The Public Staff argues that Duke should prioritize their direct marketing expenditures to emphasize those that may be more effective per dollar spent than direct mail, for example, email blasts or radio adverts. The Public Staff also notes that "multiple intervenors have expressed interest in partnering with the Companies" to market the Community Solar Program, and, therefore, recommends that Duke pursue such partnership opportunities in an effort to reduce advertising and administrative costs, thereby also reducing the individual subscription fee proportionately.

- <u>Off-bill credits and charges; lack of on-bill financing:</u> The Public Staff next takes issue with the off-bill credits and charges proposed by Duke, stating that Duke has not provided a compelling reason for such proposal. Specifically, the Public Staff argues that Duke's "inability … to manage on-bill financing or on-bill payments and credits" of Community Solar Program fees does not justify the off-bill payments and credits suggested by the Companies. The Public Staff further contends that off-bill credits are inconsistent with statutory intent as expressed in N.C.G.S. 62-126.3(15); namely, that the statutory definition of "subscription," in part, "allows a subscriber to receive a bill credit." In addition, the Public Staff opposes the Companies' plan not to offer on-bill financing of subscription costs, arguing that 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 community solar energy facility and overhead fees, is likely to increase subscriber interest in the program. In further support of its position that on-bill financing would increase the likelihood of program success, the Public Staff provides several examples of successful community solar programs that are structured to include on-bill charges and credits,[10] contending that this program characteristic "is more likely to encourage subscriber interest and to keep the subscriber committed for the full contract term."

- <u>Transferability of subscriptions:</u> Although the Public Staff states that it generally agrees with Duke's program design with regard to the proposed transferability and portability of a Community Solar subscription, the Public Staff states that the following additional steps "could be taken to design the program to reduce the risk that the subscriptions will be deemed a security and subject to securities regulation," including "monthly or quarterly payments; making payments due after electricity is generated; and marketing the program in a way that 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."

- <u>Portability of subscriptions:</u> In response to the Company's proposal regarding portability of community solar subscriptions, the Public Staff argues that "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 contiguous to a community solar energy facility." Instead, the Public Staff "supports a

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[10] Including Roanoke Electric Cooperative, Cape Hatteras Electric Cooperative, Pee Dee Electric Cooperative, and the following electric membership corporations (EMCs): Blue Ridge EMC, Piedmont EMC, Randolph EMC, Brunswick EMC, Central EMC, and Walton EMC (Georgia).

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." The Public Staff further recommends that the program be designed such that Duke will take steps to remarket unsubscribed or cancelled subscription shares of each community solar energy facility.

- Treatment of RECs: While the Public Staff acknowledges that the value of RECs associated with a single community solar subscription "is essentially immaterial" and reporting fees that would be owed if a subscriber elected to own the RECs produced likely would be cost-prohibitive as a result, it notes that Commission Rules R8-65(g)(iii)(h) and R8-72(c)(1)(ix) "specifically require that subscribers to the community solar program be allowed the option of owning the RECs produced by the community solar energy facility." The Public Staff, therefore, recommends that "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)." Under such a scenario, the Public Staff states that a "subscriber should also be responsible to pay any fees required to transfer the RECs from the [community solar energy facility's] NC-RETS account to the subscriber's chosen REC tracking account."

- Locational exemption: The Public Staff agrees with Duke's request for an exemption from the same/contiguous county requirement of N.C.G.S. § 62-126.8(c). The Public Staff further recommends that this exemption be limited to the initial community solar offering only, with any such future requests to be evaluated by the Commission at that time.

- Program cancellation: The Public Staff disagrees with Duke's plan to discontinue the program "if subscriptions are insufficient to cover the costs of the Program in either or both [of DEC and DEP's respective] service territories," on the grounds that such a provision "may be contrary to G.S. 62-126.8(a), which mandates that each offering utility shall make its [community solar] program available until total nameplate generating capacity equals 20 MW." However, the Public Staff states that it would not oppose a delay in program implementation "if a specific and reasonable target for subscriber interest is not met in tranche 1 and the Companies have attempted to [appropriately] scale the project."

- Project scalability: The Public Staff states 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," as opposed to the Companies' proposal to offer one facility in each service territory with a pre-determined capacity of 1-MW.

- Recovery of costs: In response to 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 contends that it would be "premature to determine cost recovery for the program in this proceeding."

In conclusion, the Public Staff requests that the Commission consider the issues raised in its comments, and states that it will continue to work with Duke to resolve the concerns that the Public Staff has raised in its comments.

DUKE'S REPLY COMMENTS AND MODIFIED
COMMUNITY SOLAR PROGRAM PLAN

Along with its reply comments, Duke filed an amended program plan that Duke contends addresses many of the intervenors' concerns. In addition to the program changes summarized below, Duke restated and reiterated many of the positions taken in its petition for approval of the Community Solar Program, including, its request that the Commission grant an exemption from the facility location requirement of N.C.G.S. § 62-126.8(c).

First, Duke states that the revised plan now would align the launch of the Community Solar Program with Duke's new billing system, Customer Connect, which currently is scheduled for implementation in DEP's service territory in 2021 and in DEC's service territory in early 2022. In addition, Duke argues that aligning the launch dates of both Customer Connect and the Community Solar Program will make feasible billing features that otherwise would have been cost-prohibitive. For example, Duke states that it would have the functionality to implement on-bill charges and credits (on a monthly rather than annual basis, as was initially proposed by Duke), thus reducing the upfront subscription fee. Duke states that during the lead-up to the availability of Customer Connect, the Companies plan to continue working on Program implementation, including running the RFP, and potentially entering into PPAs and marketing the Program. In addition, Duke states that the Public Staff supports its proposal to launch the Community Solar Program in alignment with the implementation of Customer Connect.

Second, Duke states it will allow projects sized up to 5 MW (rather than 1 MW as Duke initially proposed) to bid into the Community Solar Program RFP process. Duke also proposes an increase in the subscription block size, from 200 watts as initially proposed, to 1 kilowatt (kW). In addition, Duke's amended program plan would permit subscribers to own the renewable energy certificates (RECs) generated from each subscription block.

Third, Duke states that it intends to contract with the Clean Energy Collective "to deploy a real time application, a customer portal and program administration software," which Duke also uses for its South Carolina Shared Solar Program. The Companies contend that the use of the Clean Energy Collective will "help ensure full subscription through real time reporting of subscription levels and wait list functionality," which will "facilitate enrollment and avoid administrative costs of using a call center for those purposes."

Fourth, as it pertains to transferability and portability, the Companies' revised proposal provides that "portability within each utility service area will remain permissible," regardless of "whether or not a customer in that location would otherwise be eligible to subscribe." The Companies, on the other hand, provide that "customers will not be able to carry a subscription with them if they move between or outside of the DEC and DEP service areas, and no transfers of subscriptions will be permitted." While silent as to the issue of whether a customer would receive a full or partial refund, the Companies do provide that a cancelled subscription will be offered "to the next customer on the Program wait list in order to keep each community solar energy facility fully subscribed."

SUMMARY OF THE PARTIES' ADDITIONAL REPLY COMMENTS

NCSEA

By its sur-reply comments, NCSEA takes issue with Duke's proposed implementation schedule whereby the launch of the Community Solar Program would be aligned with the roll out of the Customer Connect Program. NCSEA argues that this proposed implementation program is unacceptable, lacks statutory support, and fails to substantiate a reduction in costs as compared to the costs as originally proposed by Duke. Further, NCSEA argues that Duke fails to provide a model for comparison where on-bill credits and monthly payments are implemented immediately, such as a third-party solution offering service of on-bill credits and monthly payment repository or some other cost-neutral or cost-beneficial method to implement the new program immediately. NCSEA, therefore, recommends that the Commission reject any such delay in the program implementation schedule.

NCSEA next takes issue with the overall program costs. NCSEA contends that gross subscription costs under Duke's revised program represent an increase of $3,440.80 from the initial $500.00 proposed fee over the life of the subscription. Based on what NCSEA estimates to be "a more than twenty-five-fold increase in costs for the program," combined with the delayed implementation schedule, NCSEA contends that Duke's revised program plan is a significantly worse program than the initial program despite the additions Duke has made to acquiesce the intervenors' initial comments.

NCSEA specifically objects to Duke's proposed 20-year PPA cost rate, which significantly exceeds the proposed bill credit at the avoided cost rate and which NCSEA contends "is not supported by evidence or statute." NCSEA recommends, therefore, that "Duke analyze its potential costs and then submit to the Commission a revised proposed PPA contract with more specific prices and fees and only upon review of more concrete evidence of the costs and fees should the Commission approve Duke's proposed PPA, likely at a price point much closer to the avoided cost rate." To that end, NCSEA states that it "is amenable to a recurring Commission approval process wherein Duke's proposed PPAs can be resubmitted on a yearly basis." In addition, NCSEA expresses concerns "that under the proposed tranche-based program, Tranche 1 customers may be unfairly burdened with additional costs that later tranches may not have to incur," and, as a result, "will render the program difficult to get off the ground."

Finally, NCSEA contends that Duke's revised program plan contains insufficient incentives to stimulate LMI customer participation. While NCSEA "is generally supportive of Duke continuing to consider potential alterations to the program to make it more cost-effective and financially reasonable for more customer classes, including" LMI customers, it has several recommendations for how Duke can achieve a more LMI-friendly program. First, NCSEA states that it supports the "Sierra Club's proposed modification to allow for third parties to provide independent funding assistance to low income subscribers who wish to subscribe to the program." Second, NCSEA "requests that Duke provide its customers with an ability to make donations to support LMI customer access to" the Community Solar Program "via an online portal for donations or, alternatively, a request to customers to be a recurring monthly donor to low-income solar projects, including projects that would fall under the Community Solar Program."

Sierra Club

By its sur-reply comments, the Sierra Club acknowledges that Duke made some improvements to the program through its revised plan, but expresses lingering concerns regarding program costs, the timeline of Tranche 1 implementation, LMI customer participation incentives, and certain transferability and portability provisions. Despite these remaining concerns, the Sierra Club notes that it agrees with Duke's proposal on a number of issues, including monthly on-bill credits, increased project scalability from 1 MW to 5 MW, permitting subscribers to own the RECs associated with their subscription block, and Duke's request for an exemption from the locational requirement outlined in N.C.G.S. § 62-126.8(c).

As it pertains to program costs, the Sierra Club contends that "overall program costs are too high and fail to minimize costs and maximize benefits to subscribers, and a number of the administrative costs in the revised program appear to be duplicative of services provided by Customer Connect or the Clean Energy Collective's community solar services." The Sierra Club recommends that Duke be proscribed from accepting bids above the then-projected 20-year avoided cost rate. The Sierra Club further recommends that, after the conclusion of Duke's RFP to solicit bids for community solar projects, the Commission require Duke "to finalize administrative costs, including coordinating with the Sierra Club and other interested stakeholders regarding potential marketing partnership commitments or other assistance to reduce program costs, and…file final numbers with the Commission for comment and Commission approval." The Sierra Club states that "it cannot support the program unless the overall program costs are substantially reduced." In order to reduce projected IT costs, the Sierra Club requests that only those costs which are essential for program implementation be allowed, and that to the extent allowed, such costs be divided and allocated evenly between Tranche 1 and future tranches. In order to reduce projected marketing costs, the Sierra Club requests that Duke collaborate with it "and other interested intervenors on a potential marketing partnership after Duke completes the RFP and sets the PPA price." As for the projected costs related to labor, the call center and customer engagement, the Sierra Club contends that additional justification is needed and that Duke should be required to provide a more detailed accounting of the cost projections, with the possibility of certain budget caps and true-up mechanisms to ensure actual spending is properly managed. In addition, the Sierra Club recommends that Duke's annual reporting requirement should include information regarding "actual administrative costs, actual marketing costs, a calculation of any excess revenue and supporting evidence for the calculation. In addition, annual reporting should include the number of customers participating, enrollments and de-enrollments (attrition), the average length of customer participation term (to-date), levels of participation (percentage of average annual usage), and other pertinent facts."

The Sierra Club opposes Duke's proposed timeline for Tranche 1, specifically its proposal to align the implementation of Tranche 1 with Customer Connect, on the grounds that this proposal "creates a substantial—and ultimately unknown—delay." The Sierra Club proposes as a possible solution that "Duke evaluate whether the third-party community solar company Clean Energy Collective could feasibly provide billing services for Tranche 1 without waiting for Customer Connect implementation." In support of this position, the Sierra Club argues that the "implementation of a large program like Customer Connect, estimated to cost up to $295 million in DEC territory, could foreseeably expect delays in one or both of Duke's service territories." Further, the Sierra Club points out that "[i]f the Companies operate under the Customer Connect timeline and wait to enter into a PPA until after the end of 2019, customers will lose the benefit of the federal Investment Tax Credit ('ITC') which will decline after 2019 from 30% to 26% and again after 2020 from 26% to 22%. In 2023 the ITC will be reduced permanently to 10%." The Sierra Club argues that "[b]ecause these tax credit reductions may increase PPA costs, and therefore increase costs for subscribers, Duke should plan to enter into Tranche 1 PPAs before the respective ITC step-downs."

While the "Sierra Club does not object to monthly subscription credits that are based on the actual production of the community solar project," it argues that "if customer credits are based on the actual production, monthly PPA payments – capped at avoided cost – should also be linked to the project's actual production," rather than the fixed monthly payments (PPA price + monthly administrative costs) as presently proposed.

As it pertains to LMI participation, the Sierra Club "requests that Duke make a firm commitment to evaluate opportunities to leverage any available third-party funding for an LMI program during a post-PPA review and determination of final program costs and, depending on final program costs, evaluate the feasibility of the donation-based model Sierra Club proposed in its initial comments. The Companies also should include LMI program updates in their annual reports that provide an analysis of progress towards an LMI program, including potential program designs that could more readily incorporate an LMI component."

As it pertains to transferability and portability, the Sierra Club "recommends that subscribers maintain the ability to designate a beneficiary under [certain] limited circumstances, which would include acknowledgement by the beneficiary of the monthly payment obligation associated with the subscription." On a related note, the Sierra Club notes that "the revised plan does not describe when a customer may cancel a subscription for reasons other than discontinuing electric service. The Sierra Club recommends that subscribers also be permitted to cancel a Shared Solar subscription if the program waitlist has customers that are willing to purchase the current subscriptions at that time." While the Sierra Club "agrees that customers who cancel a subscription should receive a pro rata share of their one-time fee based on the number of months they were enrolled in the program, and the waitlisted customer should pay the same pro rata one-time fee to subscribe to the program," such language "could be included on page 2 of Riders SSR and SSR-3, 'General Provisions.'"

NC WARN

By its sur-reply comments, NC WARN argues that the Commission should reject Duke's revised proposal and report to the Legislature "on the Companies' noncompliance." In addition, NC WARN argues that the Commission "must require the Companies to submit a third proposal that actually has a chance to succeed by meeting the requirements of G.S. 62-126.8 and Commission Rule R8-72, correcting the problems outlined [below], and containing the basic qualities of a reasonable community solar program: portability and transferability, provision for low-to-moderate income ('LMI') customer participation, on-bill payments and credits, the option to make payments over time, and creation of value for the subscriber."

In support of its position, NC WARN contends that (1) Duke's proposal fails to comply with the requirements of Commission Rule R8-72; (2) Duke's proposal "is unacceptable because customers would lose half their investment, [and] thus be unwilling to participate;" (3) Duke's proposal "imposes an unreasonable 5-year delay" through its intended implementation alignment with Customer Connect; (4) Duke's proposal "falls short because the Companies do not plan to increase the avoided cost rate over the 20-year contract period;" (5) Duke's proposal to increase the subscription block size from 200 watts to 1 kilowatt "puts participation out of reach for most customers;" (6) "a reasonable community solar program would not introduce the delay, complication and inequity of multiple tranches, but would instead offer all 40 MW simultaneously from the outset;" and (7) Duke's proposal "leaves subscribers responsible for excessive marketing expenses."

Additionally, NC WARN argues that the Commission "should not allow the Companies to recover expenditures in a future rate case" due to the prohibition against cross-subsidization of program costs as outlined in N.C.G.S. § 62-126.8.

Duke

By its sur-reply comments, Duke argues in response to multiple intervenors' concerns regarding the proposed timeframe for Program implementation that the "technological and administrative benefits…outweigh extending the implementation timeframe" by aligning the Program with Customer Connect. The Companies further note that the Public Staff supports this modification, and reiterate that "there is no required statutory timeline to implement the Program, unlike other new programs being implemented under House Bill 589." In addition, Duke points out that the revised proposal to implement the Program in alignment with Customer Connect only results in a one-year delay beyond when the Companies projected to launch the Program without Customer Connect. In response to the intervenors' recommendation that Duke consider using a third party to do what Customer Connect will accomplish, thus potentially allowing for program implementation to occur sooner, Duke argues that its proposal "avoids additional costs that would be incurred by using a third party" to do what Customer Connect will be able to do. In an attempt to address some of these concerns, Duke agrees that "[t]o the extent developments in the Customer Connect program are relevant to the development of the Community Solar program and are not already covered by the comprehensive annual reports filed for Customer Connect, the Companies will include that information in their annual Community Solar reports." In response to the Public Staff's suggestion that Duke evaluate whether Customer Connect software could be used to implement the Program before full deployment of the billing system, the Companies note that they remain dedicated to launching the monthly subscription process for customers as soon as is feasible with Customer Connect. The Community Solar Program as proposed, however, requires the complete functions of a customer servicing system: customer set-up, move in/move out, billing, payment processing, collections, etc. As it pertains to some of the Program administration services to be provided by a third party, Duke confirms that the "Companies' work will not overlap with" work provided or costs incurred by the third party.

In response to multiple intervenors' concerns regarding its projected cost estimates, Duke reiterates "that precise cost estimates cannot be determined until the RFP is run." In addition, Duke states that "the Companies are not requesting approval of any estimates of Program costs or any estimated upfront or monthly charges or credits." Rather, "[s]ubsequent to the conclusion of the RFP, consistent with the recommendations of the Public Staff and Sierra Club, and in recognition of the lingering cost concerns, the Companies commit to share and discuss the RFP results and status with current intervenors, seek feedback on those results, and seek other opportunities to reduce Program costs through partnerships with intervenors or other interested parties." Furthermore, Duke offers that "[a]fter this period of stakeholder engagement, the Companies will make a filing with the Commission in these dockets reporting on the outcome of the RFP and those discussions and requesting Commission approval of the final cost and charge/credit amounts resulting from the RFP as well as any relevant schedule or process information."

If allowed to proceed with the program structure as revised, the Companies assert that they then will be in a position to move forward with the RFP solicitation process and determine more precise program costs and a timeframe for implementation based on the RFP results. To that end, the Companies "agree with the Public Staff's suggestion to include more precise cost information in their annual reports on the Program," and further that "this post-RFP request for approval may be filed independent of the annual reporting schedule in order to provide transparency as to costs and charges as soon as those are determined." On a related note, "in addition to committing to stakeholder discussions on and filing for Commission approval of Program charges and credits following the RFP, the Companies propose to use those post-RFP discussions to address any lingering questions about timing and procedure that can be addressed at that point in time, and to request Commission approval of a further developed Program implementation schedule consistent with R7-72(c)(1)(xiv) together with the request for approval of charges and credits."

In response to the Intervenors' view that Duke should spread program costs across multiple tranches, Duke disagrees and contends that it would be premature to require such because the scope of future Program tranches is not yet known or approved. At the least, as the Public Staff has supported, a delay in Program implementation may be necessary if there is not sufficient interest to support Tranche 1. It would therefore be inappropriate and present unnecessary risk to the Companies to require at this time that the costs to implement Tranche 1 be spread over future tranches. In the alternative, the Companies propose that "[o]nce the Tranche 1 RFP bids have been received and analyzed, if the Companies determine that based on projected costs they can fully subscribe more than one project in both service areas, the Companies will consider how the Tranche 1 costs might be spread across future tranches."

In response to certain of the Intervenors' suggestion that the Companies should specify in the RFP that they will not accept bids greater than the avoided cost, the Companies point out that while a bid by itself may be less than the avoided cost, the total price could exceed avoided costs when "costs relating to marketing and project management for a particular project" are included in the project's final cost. However, in order to address the Intervenors' concerns as they relate to this issue, the Companies state that they are "willing to specify in the RFP that they will not accept projects for which the total costs are greater than avoided cost."

In response to several of the Intervenors' suggestion that the Companies have not included a sufficient LMI component in the Program, Duke contends that these Intervenors have not offered a feasible way to incorporate such a component without also increasing Program costs or violating the statutory prohibition against cross-subsidization of Program costs. The Companies reiterate, however, their position that they "do not object to third parties donating funds to assist in subscription."

Finally, Duke highlights the areas of agreement among the Companies and at least several of the intervenors, including (1) project size and selection; (2) increased size of subscription block; (3) subscribers having the option to own RECs associated with their subscriptions; and (4) the Companies' request for exemption from the facility location requirement of N.C.G.S. § 62-126.8(c).

<u>The Public Staff</u>

By its additional reply comments, the Public Staff explains that it supports the launching of the Community Solar Program with Customer Connect, in part, because "Duke has indicated that until Customer Connect is deployed in each service territory, on-bill credits would have to be added to each customer bill manually, which would add significant cost to the Program." Further, the Public Staff states that it believes that the benefits of launching the Program with Customer Connect, which may make the Program more attractive to potential subscribers are, on balance, worth a one to two year delay in Program implementation. Notwithstanding this support, however, the Public Staff "recommends that the Commission encourage Duke to look for potential avenues to accelerate implementation of the Program where possible." Further, the Public Staff "recommends that the Commission require Duke to include in its annual filing, as required by Rule R8-72(c)(2), an update on the deployment of Customer Connect and any progress in the Companies' ability to use the software to issue monthly on-bill credits and charges for the Program."

In addition, the Public Staff states that it also supports Duke's proposed increased subscription block size and project size, both of which consequently should reduce the initial upfront subscription fee to subscribers. As it pertains to project scalability, however, the Public Staff "recommends that the Commission require the Companies provide a summary in its annual reports of the subscription thresholds reached in the South Carolina community solar program and a description of the project sizes and PPA prices achieved in that program and whether North Carolina can expect to achieve similar prices and interest in participation."

The Public Staff further supports Duke's efforts "to find a lower PPA price through competitive solicitation methods, including the consideration of bids submitted to the CPRE Tranche 1 that are not selected." To this end, however, the Public Staff opines "that Duke will most likely be able to obtain a PPA price much closer, or perhaps even below, the avoided cost," and recommends that the Commission require the Companies to provide more information than is required by Commission Rule R8-72(c)(1)(xiii); specifically, information "regarding any alternative methods of procurement to a community solar RFP in order to provide transparency and assurance that the Companies are making reasonable efforts to achieve cost-effective PPA prices for all community solar energy facilities."

As it pertains to Duke's revisions to its proposed portability and transferability provisions, the Public Staff states that it also is supportive of these revisions, specifically as it pertains to Duke's elimination of the customer's option to transfer subscriptions to a beneficiary. In addition, the Public Staff supports the customer's "ability to cancel [his or her subscription] and Duke's proposal to provide for a waitlist for the next customer to subscribe." However, the Public Staff "recommends that the Commission require the Companies either (i) refund a pro rata share of the upfront fee to the departing customer as originally suggested, or (ii) similarly discount a replacement subscriber's upfront fee."

The Public Staff states that it supports Duke's revised approach to allow subscribers "a path to own the RECs associated with its subscription block if the subscriber pays all fees and applies with NC-RETS to create a REC tracking account." The Public Staff also continues to support Duke's request for a locational exemption to the same/contiguous county requirement set forth in N.C.G.S. § 62-126.8(c), subject to the Public Staff's continued recommendation "that the exemption request be granted for Tranche 1 and that future exemption requests be evaluated on an individual basis."

As it pertains to program costs, the Public Staff states that Duke's revised program remains a cost premium program and has "significantly increased administrative costs instead of reducing them," contrary to the Companies' claim that aligning the launch of the Community Solar Program with Customer Connect will reduce overall costs. In addition, the Public Staff takes issue with the fact that Duke's cost estimates "do not appear to spread fixed costs for the Program, such as program management and IT, over the entire 40 MW of community solar that is statutorily authorized." Accordingly, the Public Staff contends that the "Tranche 1 offering should reflect only a fraction of the total costs of setting up and managing the Program." In an effort "to make the Programs more economically attractive to potential subscribers, the Public Staff recommends that the Commission encourage the Companies to pursue the larger 3 or 5 MW programs and allocate fixed costs beyond Tranche 1 of the Program." In addition, the Public Staff recommends that the Commission require Duke "to incorporate revised overhead costs in future Program annual reports as those cost estimates become more accurate" and "to provide further details on the implementation schedule for the full 20 MW in each service territory and how costs will be allocated among tranches of the Program." Finally, as it pertains to cost recovery, the Public Staff states that it "continues to believe that it is premature to consider cost recovery for the Program in this proceeding."

While the Public Staff acknowledges that an LMI option "may result in cost shifting," which is prohibited by statute, it nonetheless "recommends that the Commission require Duke to provide in its annual reports a description of any LMI options it has considered and the feasibility of those options in the structure of the Program and in compliance with the requirements to hold non-participating customers harmless."

While the Public Staff states that it continues to believe that Program cancellation for lack of prospective subscriber interest may be contrary to the statutory mandate to offer the Program until both DEC and DEP's respective nameplate generating capacity equals 20 MW, the Public Staff opines "that the statute does not prohibit its cancellation or at least delay" and that the Public Staff "continues to support Duke's option to seek a delay in the implementation of the Program if a specific and reasonable target for subscriber interest is not met in Tranche 1."

DISCUSSION AND CONCLUSIONS

The Commission carefully reviewed Duke's petition, proposed Community Solar Program Plan, the accompanying rider leaflets and related documents, all of the other parties' comments, the consumer statements of position, and the entire record in these proceedings. Based upon this review, the Commission determines that Duke's revised Community Solar Program Plan and accompanying rider tariffs comply with the requirements of N.C.G.S. § 62-126.8 and Commission Rule R8-72. Therefore, the Commission concludes that Duke's revised Community Solar Program Plan and accompanying rider tariffs should be approved. In addition, for the reasons stated by Duke and the other parties to these proceedings, the Commission determines that allowing Duke's requested exemption from the facility location requirement of N.C.G.S. § 62-126.8(c) is in the public interest, and, therefore, concludes that this request should be granted.

In approving the revised Community Solar Program Plan and accompanying riders, the Commission acknowledges that it is deferring to Duke's business judgment and the Public Staff's expertise and recommendations to a greater extent than the Commission has in other proceedings established to review programs established under House Bill 589. The Commission finds this approach to be appropriate for the following reasons.

First, the structure of the Community Solar Program, as established pursuant to N.C.G.S. § 62-126.8, is materially different than those other programs in at least one key aspect: the Community Solar Program is not limited in time, but exists into perpetuity, subject to the Commission's oversight. Thus, the Commission will have the opportunity to monitor and adjust the terms of participation in the Community Solar Program based upon the results of offering of subscriptions in Tranche 1 of the program. For that reason, the Commission would look with disfavor upon Duke's request to cancel the program before improvements have been implemented.

Second, the comments filed by Duke and the Public Staff demonstrate that the Public Staff has diligently and effectively performed its role as the consumer advocate in these proceedings. The Public Staff resolved many of its differences with Duke over the structure of the Community Solar Program and Duke incorporated many of the Public Staff's recommendations into its revised program. The Public Staff also recommended that the Commission require Duke to consider or implement certain refinements to the Community Solar Program. The Commission agrees with the Public Staff. The Commission will, therefore, require Duke to consider those issues raised by the Public Staff in its implementation of the program, and to address each of the issues raised by the Public Staff in the first annual report on the implementation of the Community Solar Program, in addition to those matters required to be addressed in the annual report pursuant to Commission Rule R8-72(c)(2).

More specifically, the Commission is concerned that Duke has placed too little emphasis on implementing aspects of the program prior to the "full deployment" of Customer Connect.[11] Therefore, consistent with the recommendation of the Public Staff, the Commission will direct Duke to undertake efforts to implement the Community Solar Program, where possible, prior to Customer Connect being deployed across the Duke electric systems. In doing so, the Commission will also require Duke to file an interim report on this specific aspect of the implementation of the Community Solar Program and

[11] On April 1, 2019, in Docket No. E-7, Sub 1146, DEC filed a revised AMI rate design work plan and proposed dynamic pricing pilots. In that filing, DEC states that it has revised the timeline for this work to reflect accelerated implementation of the Customer Connect billing system in spring of 2021. The Commission understands and expects that certain functions of the Customer Connect billing system may be available to facilitate the implementation of the Community Solar Program.

addressing the concerns raised by the Public Staff, including whether and how Duke decided to address those issues in implementing the program. In addition, the Commission determines that the Public Staff should continue to monitor the program implementation so that the Public Staff will be prepared to respond to Duke's interim and annual reports with recommendations for speedier implementation of, or improvements to, the Community Solar Program. Any adjustments in the Community Solar Program that the Commission undertakes will be considered and decided in the context of the review of these reports, with appropriate opportunity for all parties to provide comments.

Third, while the Commission notes many parties' ongoing objections to the revised program, the Commission finds that many of these arguments lack support in the provisions of N.C.G.S. § 62-126.8. Instead, the Commission concludes that N.C.G.S. § 62-126.8 delegates to the Commission discretion to implement the Community Solar Program consistent with the public interest and subject to the express provisions of that statute. After careful review, the Commission finds nothing in the revised Community Solar Program Plan and accompanying rider tariffs that is inconsistent with the provisions of N.C.G.S. § 62-126.8.

Finally, the Commission agrees with the Public Staff that it is premature to address issues related to recovery of costs incurred to implement the Community Solar Program. The Commission will reserve consideration of those issues until the question is squarely before the Commission in an appropriate proceeding.

IT IS, THEREFORE, ORDERED as follows:

1. That the Community Solar Program filed by Duke Energy Carolinas, LLC and Duke Energy Progress, LLC, as revised consistent with the conclusions reached in this Order, including the revised Schedule SSR and SSR-3, shall be, and is hereby, approved;

2. That the requested exemption from the location requirements of N.C.G.S. § 62-126.8(c) made by Duke Energy Carolinas, LLC and Duke Energy Progress, LLC shall be, and is hereby, granted;

3. That Duke Energy Carolinas, LLC and Duke Energy Progress, LLC shall implement the Community Solar Program in the manner and on the timeline described in their reply comments filed in these proceedings, taking into account the conclusions reached herein and the comments of the Public Staff, and shall continue to cooperate with the Public Staff in the implementation of the Community Solar Program, including, considering the issues raised by the Public Staff in these proceedings and addressing those issues in its first annual report required by Commission Rule R8-72;

4. That, within 180 days of the date of this Order, Duke Energy Carolinas, LLC and Duke Energy Progress, LLC shall file an interim report addressing the following issues:

a. What avenues to accelerate the implementation of the Community Solar Program did Duke consider and what conclusions were reached as a result of this consideration;

b. Provide an update on Customer Connect and the progress made to use the software to issue monthly on-bill credits and charges within the Community Solar Program;

c. A summary of subscription thresholds reached in the South Carolina community solar program, the project sizes and PPA prices, and whether the experience in implementing the Community Solar Program will be similar

d. What alternative methods of procurement, other than a community solar RFP, is Duke considering and what is Duke's view on whether any of those alternative methods might result in lower costs of implementing the Community Solar Program;

e. Whether Duke has considered alternative arrangements for the refunding of a pro rata portion of the upfront fee, or a discount on a replacement subscriber's fee, and what conclusions were reached as a result of this consideration;

f. Whether Duke has changed its views on the size of facilities or the allocation of fixed costs across the Program;

g. Whether revisions to the estimated overhead costs of the Community Solar Program are available;

h. Whether Duke considered LMI options and, if so, what conclusions were reached as a result of this consideration; and

i. The results of the RFP, if available, and the result of the post-RFP discussions that Duke committed to undertake at an appropriate time.

5. That the Public Staff shall maintain an appropriate level of involvement in the implementation of the Community Solar Program so that it can provide the Commission with an informed response to the filing of the interim report required by this Order and the first annual report required by Commission Rule R8-72(c)(2); and

6. That in addition to those matters required to be addressed in the annual report required pursuant to Commission Rule R8-72(c)(2), Duke Energy Carolinas, LLC and Duke Energy Progress, LLC shall update the Commission on the issues enumerated in Ordering Paragraph No. 4 of this Order.

ISSUED BY ORDER OF THE COMMISSION.

This the 4th day of April, 2019.

NORTH CAROLINA UTILITIES COMMISSION

Janice H. Fulmore, Deputy Clerk