BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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

In the Matter of: Petition of Duke Energy Progress, LLC, and Duke Energy Carolinas, LLC Requesting Approval of Community Solar Program Plan Pursuant to G.S. 62-126.8	**SIERRA CLUB'S REPLY COMMENTS**

PURSUANT TO NCUC Rule R1-19, the January 26, 2018 *Order Establishing Proceeding to Review Proposed Community Solar Program Plan* and subsequent Orders granting extensions of time including the June 11, 2018 *Order Granting Extension of Time to File Additional Reply Comments* in the above-captioned docket, the Sierra Club respectfully submits the following reply comments in response to the reply comments filed by Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP") (collectively "Duke" or "Companies").

INTRODUCTION

In their reply comments, the Companies have made a number of changes to the initial Shared Solar program application. The Sierra Club appreciates the effort Duke has made in these revisions and agrees with Duke that a number of these changes align with the comments received by intervening parties and create a framework that may help develop a successful Shared Solar program. As discussed below, the Sierra Club welcomes the opportunity to collaborate with Duke on certain program components, including program marketing efforts. The Sierra Club believes that its assistance in marketing the Shared Solar program could decrease marketing costs and improve the chances of successful Tranche 1 implementation. However, as it stated in its initial comments, the Sierra Club cannot help market a program that it does not support. While Duke's revisions to the program are improvements in a number of ways, Sierra Club has remaining concerns regarding: (1) Program Costs: 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, and (2) Tranche 1 Timeline: the program implementation linked to the Customer Connect program creates a substantial—and ultimately unknown—delay.

As discussed herein, while the Sierra Club is hopeful that a number of the cost estimates Duke uses in its reply comments can be reduced, the overall program costs presented in the Companies' reply comments are too high for the Sierra Club to support. The Sierra Club requests that, after the Companies complete the Shared Solar request for proposals ("RFP") and establish power purchase agreement ("PPA") prices for the Tranche 1 projects, they (1) work 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 (2) file final program numbers with the Commission for comment and final Commission approval.

In an effort to reduce the program delay caused by linking the Shared Solar program with Customer Connect implementation, the Sierra Club also requests 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.

1. Areas of Agreement

Duke describes areas of agreement amongst parties regarding a number of changes the Companies have made to the Shared Solar program application.[1] Sierra Club agrees that it supports a Shared Solar program (1) reflecting customer credits monthly rather than annually; (2) including monthly credits on customer bills rather than off-bill; (3) increasing eligible Shared Solar project sizes from approximately 1 MW to up to 5 MW; (4) permitting Program subscribers to own the renewable energy certificates ("RECs") associated with their subscription block; and (5) allowing subscribers to be located up to 75 miles from the Shared Solar facility, pursuant to N.C. Gen. Stat. ("G.S.") § 62-126.8(c).

a. <u>On-bill monthly credits</u>

The Sierra Club's initial comments indicated support for monthly on-bill credits for Shared Solar subscribers because this type of monthly crediting will likely create a superior customer experience for subscribers and will help avoid potential securities regulation or tax issues. This program attribute should help contribute to a Shared Solar program that will attract sufficient customer interest to be successful.

b. <u>Increasing eligible project size from 1 MW to 5 MW</u>

Duke's expansion of the eligible Tranche 1 project size, from 1 MW to a maximum 5 MW, should decrease program costs by reducing the PPA cost through economies of scale.[2] Sierra Club supports allowing any project up to 5 MW to bid into the Tranche 1 Program RFP in an effort to reduce overall program costs. This increased project size could also allow Duke to consider projects up to 5 MW that submitted bids

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[1] Duke Reply Comments at 6.
[2] *Id*. at 17.

into the Competitive Procurement of Renewable Energy ("CPRE") process but were not selected as CPRE projects. While a larger project size will require Duke to subscribe a larger number of Shared Solar blocks, obtaining the lowest-possible PPA price is one of the most significant factors in reducing Tranche 1 costs and creating a Shared Solar program that will be successful.

c. Allowing customers to retain RECs

Duke has included a provision regarding Shared Solar RECs, which would allow customers to choose to own the RECs produced by the project and would require such customers to create a REC tracking account under NC-RETS or a similar type of program.[3] The Sierra Club does not object to this provision and agrees with the Public Staff and Duke that the provision complies with the requirements of G.S. § 62-126.8(e)(8).[4]

d. 75-mile exemption

Duke has renewed its request for an exemption under G.S. § 62-126.8(c), which allows a Shared Solar facility to be located up to 75 miles from the county of subscribers if the Commission deems the exemption to be in the public interest.[5] Duke states that the exemption is in the public interest because it will allow the Companies to target program marketing efforts at the widest possible audience, including in more populated areas, and to seek development opportunities in locations that minimize the one-time subscription cost, thereby attracting more subscribers and increasing the chances of program success.[6] Duke states that it will include an update in its annual reports regarding whether the

[3] *Id*. at 18-19.
[4] Public Staff Initial Comments at 9-10.
[5] Duke Reply Comments at 33-35.
[6] *Id*. at 35.

exemption is utilized for a particular Program project. Sierra Club agrees, as it stated in its initial comments, that a larger geographic area will provide the Companies greater flexibility to find a lower-cost PPA.

The Sierra Club does not object to this request for the purposes of Tranche 1 if Duke agrees to the process, or a similar process, proposed in Section 2.h below to finalize Tranche 1 program costs after Duke completes the RFP and establishes the project size and PPA price. Such a process will help alleviate the Sierra Club's concern that the 75-mile exemption – and the significantly larger geographic area it would create for Tranche 1 projects – could result in a net increase in program costs.

2. Areas of Concern

The Sierra Club has a number of continuing concerns regarding Duke's revised Shared Solar plan. These concerns are addressed below and primarily involve program costs and the Tranche 1 implementation timeline.

a. Overall Program Cost

Duke has proposed to increase the size of each Shared Solar block from 220 W to 1,000 W (1 kW).[7] This change will also increase the estimated average energy generated by each block per month from 35 kWh to 159 kWh.[8] A larger block size will decrease the number of blocks that must be subscribed per MW and will provide Shared Solar subscribers with a larger portion of their energy usage represented by Shared Solar generation.[9] These changes may make the program easier to fully subscribe and may increase customer interest in the program, respectively. The Sierra Club does not object

[7] *Id*. at 17-18.
[8] Proposed Rider SSR at 1, "Customer Subscription".
[9] Duke's initial proposal of 220 W/block resulted in approximately 4,300 blocks per 1 MW project. The updated proposal of 1 kW/block would result in 1,000 blocks per 1 MW project.

in principle to the block size increase but is concerned about the cost of the Shared Solar program over the 20-year subscription period.

In the initial proposal, Duke estimated that each 220 W block would cost $500 and that the total subscriber credit over 20 years would be $420, resulting in a net premium of $80 per block (or approximately a $363 premium if the block had been 1 kW rather than 220 W).[10] However, depending on the one-time fee and the monthly premium, the total program cost for subscribers in Duke's revised proposal could be considerably higher. Duke provides three examples of possible Tranche 1 projects of 1 MW, 3 MW, and 5 MW.[11] Totaling the one-time fees and net monthly fees in Duke's examples, the estimated net costs of the projects for a single customer purchasing a single block are: $2,032 (1 MW project); $1,380 (3 MW project); and $1,249 (5 MW project).[12] This amounts to a premium over the 20-year program of approximately $0.053/kWh (1 MW project); $0.036/kWh (3 MW project); and $0.033/kWh (5 MW project).[13]

As Duke notes in its reply comments, both the one-time fee and the monthly fee could decrease based on decreased marketing or other administrative costs and if the PPA price is less than the estimate used in these tables.[14] However, the premium program costs currently included in the above examples do not minimize costs and maximize benefits as required by Commission Rule R8-72(c)(1)(xii), and the Sierra Club cannot support the program unless the overall program costs are substantially reduced.

[10] $80 multiplied by 4.54 (1000 W divided by 220 W = 4.54).
[11] Duke Reply Comments at 11.
[12] For each project, the net monthly fee is multiplied by 12 (months per year) and then by 20 (years in subscription); the upfront fee is then added.
[13] Duke estimates each Shared Solar block will generate 159 kWh per month, or 38,160 kWh over 20 years. Total net program cost, divided by the total generation (38,160 kWh) equals the per kWh premium.
[14] Duke Reply Comments at 9-10. "If the monthly charge is lower due to lower than anticipated PPA costs as noted above, the net amount paid will be lower or could become a net credit."

After Duke determines the PPA price and finalizes the project's administrative costs, the Companies should re-evaluate the program cost allocation in order to decrease overall program costs, with the goal of reducing the net monthly fee as close to $0 as possible while still being mindful of high one-time fees that may limit customer subscriptions. For instance, if Duke is able to reduce marketing and other one-time costs, it could potentially allocate a portion of the projected monthly fee into the one-time fee in order to reduce the overall project cost. For example, a program with a $200 one-time fee and a $1 net monthly fee would have an overall net cost of $440 over 20 years – a reduction of almost $1,600 from the 1 MW project estimate. Because this analysis cannot yet be conducted without final PPA and administrative costs, it should be included as part of the post-PPA review discussed in Section 2.h, below.

The Companies' reply comments also respond to the Sierra Club's concerns regarding the estimated PPA cost of $65/MWh.[15] Sierra Club acknowledges that this cost is only an estimate and that the RFP will establish the PPA price that may actually be used for Tranche 1. However, Sierra Club requests that the Companies include a provision in the Shared Solar RFP that Duke will not accept bids above the then-projected 20-year avoided cost rate. Outside of the CPRE process, and potentially the Green Source Advantage program, solar developers in North Carolina do not currently have access to 20-year PPAs for projects up to 5 MW, and the Shared Solar RFP may present an attractive opportunity for a contract of this duration at a fixed rate.

However, just as Duke does not plan to recover Shared Solar PPA costs greater than the applicable avoided cost rate through the fuel clause,[16] Shared Solar customers

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[15] *Id*. at 24-25.
[16] *Id*. at 21.

should not be required to pay more than the avoided cost rate for energy and capacity from the project. Further, requiring solar developers to submit bids no higher than the avoided cost rate will ensure that developers do not bid high, knowing that they are not capped by the avoided cost rate. This is consistent with the requirements to minimize costs and maximize benefits and is consistent with the public interest.[17]

b. <u>One-time and Monthly administrative fees</u>

Duke's revised program includes one-time fees for IT, Labor, Cost to Acquire (Marketing) and a Call Center, and it includes monthly fees for IT, Labor, Customer Engagement, and a Call Center.[18] Duke may only recover reasonable administrative costs, and Duke has the burden to demonstrate that proposed administrative costs are reasonable.[19] While Sierra Club acknowledges that a number of the administrative costs cannot be determined until after the RFP, Sierra Club is concerned (1) that these estimated costs are still too high and in some cases have increased; (2) some of the costs included in the estimates appear to be duplicative; and (3) Duke has not adequately described or justified many of these costs.

i. IT

Duke states that it now intends to contract with the community solar developer Clean Energy Collective ("CEC") to deploy a real time application, a customer portal and program administration software for the Shared Solar program.[20] As a result of these plans, the Companies have substantially increased their projected IT costs in the revised program, and the Sierra Club is concerned that several of the CEC services that Duke

[17] G.S. § 62-126.8(e)(2); R8-72(c)(xii).
[18] Duke Reply Comments at 11.
[19] G.S. § 62-126.8(e)(1); R8-72(e)(5).
[20] Duke Reply Comments at 12.

proposes to include in program costs are unnecessary for Tranche 1 and do not justify the increase in program costs.

Duke has indicated that while its initial program application included only the minimum amount of technology needed to launch the program, the revised program includes additional features, including an application tool, an enrolled customer portal, and ongoing program management software.[21] These new tools perform a variety of functions, including allowing customers to monitor real time capacity remaining for new subscribers; view their project's electricity productions across various timeframes; view previous monthly credits and charges; and view various infographics about the quantity of solar energy produced at the project.[22]

While these types of supplemental features might enhance the overall customer experience, they are not necessary for Tranche 1 and are not justified or reasonable in light of the increase in overall program costs.[23] Any IT costs included in program fees should only include the services <u>essential</u> for program implementation.

Alternatively, if the Commission considers the IT services Duke has included in its revised plan to be necessary for the Shared Solar program, these IT costs should be divided and allocated evenly between Tranche 1 and future tranches. This will decrease Tranche 1 program costs and will help prevent Tranche 1 subscribers from subsidizing subscribers in future tranches. While Duke may voice concerns about the risk of under-recovery if it spreads IT costs over multiple tranches and Tranche 1 is unsuccessful, lower program costs in Tranche 1 will help the Shared Solar program succeed, which will enable subsequent tranches – and program cost recovery.

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[21] Duke Response to Public Staff Data Requests 3-3 and 3-4.
[22] *Id*.
[23] Duke may only recover reasonable administrative costs. G.S. § 62-126.8(e)(1).

Additionally, if the Commission determines that it is appropriate to utilize Customer Connect for Tranche 1 in coordination with any CEC services, Sierra Club is concerned that some of the services that CEC could provide may be duplicative of the Customer Connect program or of other administrative costs, and would therefore represent redundant or unnecessary program costs. Customer Connect is described as providing simplified processes and personalized services; improvements to bill formats; and allowing the company to more quickly introduce and integrate new rates, riders, and programs.[24] Similarly, CEC's website indicates that it provides administration, ongoing customer engagement and billing integration, compliance, and marketing services. Duke should demonstrate that the services provided by CEC do not duplicate administrative costs included as one-time fees or monthly fees and that CEC's services do not duplicate services that can be provided by Customer Connect.

ii. Marketing

In response to initial comments by intervenors, Duke states that it is "committed to utilizing the most cost effective marketing methods possible and not charging more for marketing than what it will cost to attract enough subscribers to have a successful program."[25] Duke recognizes that marketing costs could be less than estimated depending on the costs to market each site to customers, and the Companies have indicated their intent to seek out ways to collaborate with local communities and interested organizations to facilitate the Program's implementation. Duke states that "in the case that a productive commitment or partnership develops that brings in subscribers

[24] Docket No. E-7, Sub 1146, Direct Testimony of Retha Hunsicker at 9-12 (Aug. 25, 2017).
[25] *Id*. at 22.

and reduces the Companies’ marketing burden, the upfront subscription fee would decline.”[26]

Sierra Club appreciates Duke’s commitment to working collaboratively with Sierra Club and other interested stakeholders in an effort to reduce marketing – and overall program – costs. As discussed in greater detail below, Sierra Club requests that Duke collaborate with Sierra Club and other interested intervenors on a potential marketing partnership after Duke completes the RFP and sets the PPA price. Sierra Club is hopeful that the program will be one that it can support, and if so, stands ready to assist Duke in these marketing efforts.

As part of this effort to reduce overall program cost, the Sierra Club requests that the Commission clarify that Duke may include a portion of its Shared Solar marketing costs within Duke’s existing general education and/or any renewable energy marketing budget, to the extent the existing education and marketing materials can include information about the Shared Solar program. Informing customers about the Shared Solar program offering is consistent with past and existing Duke marketing efforts demonstrating the Companies’ commitment to renewable energy, generally, and would be appropriate to include in existing or future marketing efforts and budgets of this kind. Including Shared Solar marketing and education efforts within these broader, but applicable, categories could help to substantially minimize program costs while holding harmless Duke’s customers not participating in the Shared Solar program. Duke should also demonstrate that projected marketing costs are not duplicative of services offered through CEC’s services or Customer Connect.

[26] *Id*. at 24.

iii. *Labor*

Duke estimates approximately $88,000 in one-time customer fees and approximately $2,900 in monthly fees for Labor per project,[27] but Duke has not provided sufficient justification for these costs. While the Sierra Club does not object to the Companies finalizing their labor costs after the PPA price is established as part of a post-PPA review subject to final Commission approval, Duke should be required to provide a more detailed accounting of the estimated labor costs it proposes to include in program fees, including a demonstration that the labor costs included do not represent services that are duplicative of CEC's services and/or Customer Connect.

In addition to the one-time Labor fee, Duke includes a monthly labor fee totaling approximately $35,000 per project annually.[28] Over the life of the program, this monthly fee would cost subscribers $696 per block and would represent 40% of the net monthly fee in the 1 MW project example.[29] As discussed below, the Sierra Club does not object to an annual true-up of monthly charges under a "not to exceed" framework, but the administrative charges, including the one-time and monthly labor fees, should be explained more thoroughly to provide the Commission a sufficient basis for review, and they should be minimized as much as reasonably possible.

Additionally, to the extent that work by Duke employees categorized as "Labor" in Shared Solar program fees would constitute part of these employees' general existing responsibilities and would not require a new dedicated employee, the Sierra Club requests that the Commission clarify that such costs do not need to be categorized

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[27] *Id*. at 11.

[28] *Id*. The 1 MW project lists $2.90/block, or $34,800 per project. The 3 MW project lists $0.97/block, or $34,920 per project. The 5 MW project lists $0.58/block, or $34,800.

[29] For the 1 MW project example on p. 11 of Duke's Reply Comments, Duke estimates the monthly cost for labor to be $2.90 per month out of an estimated $7.24 net monthly fee.

specifically as a Shared Solar administrative cost and recovered through Shared Solar subscription fees. Similar to the requested clarification above regarding marketing costs, this would help keep costs low while still holding non-participating customers harmless.

iv. Call Center

Duke includes an estimated cost of $5 per customer for a Call Center, but it does not provide a specific explanation for this cost. Duke also acknowledges that the Call Center cost could be less than estimated depending on the number of subscribers per project and other factors.[30] Duke indicates that one benefit of the CEC platform is that it will "facilitate enrollment and avoided administrative costs of using a call center for those purposes."[31] The Sierra Club requests that Duke provide a more specific accounting for the Call Center cost estimate, including whether the $5 per customer cost incorporates cost savings through use of the CEC online platform or through Customer Connect.

v. Customer Engagement

Duke includes an estimated monthly fee of $0.51 per block for customer engagement.[32] Similar to the Call Center fee above, Duke has not provided an adequate explanation for this charge, including why this ongoing need is not satisfied through the CEC platform or through Customer Connect.

c. Variable Monthly Fees

Duke has proposed to include monthly avoided cost credits that are variable based on the actual production of the community solar project to which a customer is

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[30] Duke Reply Comments at 22.
[31] *Id*. at 13.
[32] *Id*. at 11. The Customer Engagement fee is $0.27 for the 3 MW project and $0.22 for the 5 MW project.

subscribed.[33] The Sierra Club does not object to monthly subscription credits that are based on the actual production of the community solar project. However, if customer credits are based on actual production, monthly PPA payments – capped at avoided cost – should also be linked to the project's actual production.[34] As proposed, the monthly payments (PPA price + monthly administrative costs) would be fixed.[35] Monthly solar energy credits and PPA payments based on actual solar production could be based on actual monthly production – which would likely create more price volatility month by month – or they could be averaged over the year as part of the annual report and applied to customer subscription fees in the following year.

The Sierra Club also supports annual true-ups of administrative costs included in the monthly fees under a "not-to-exceed" framework. Specifically, Duke includes monthly fees for Labor, Customer Engagement, IT, and a Call Center.[36] To the extent that the actual administrative costs incurred monthly in Tranche 1 turn out to be <u>lower</u> than those included in the initial monthly fee, the following year's monthly fee should be proportionally reduced.

This information and cost data should be included by Duke in its annual reporting, required by Commission Rule R8-72(c)(2). Annual reporting should include actual administrative costs, actual marketing costs, a calculation of any excess revenue and supporting evidence for that calculation. In addition, annual reporting should include the number of customers participating, enrollments and de-enrollments (attrition), the

[33] *Id*. at 10.
[34] As discussed above, the Shared Solar RFP should be capped at Duke's avoided cost, so that the PPA payments made by Shared Solar customers are no greater than the avoided cost credits, and could potentially be lower.
[35] "The Monthly Subscription Charge shall be the contracted number of blocks times a fixed rate per block that is specific to the generation site. The Monthly Subscription Charge shall be applicable for the 20 year contract term."
[36] Duke Reply Comments at 11.

average length of customer participation term (to-date), levels of participation (percentage of average annual usage), and other pertinent facts.

d. Customer Connect Timeline

Duke's revised Shared Solar program would incorporate the Companies' planned Customer Connect program to facilitate customer billing.[37] Duke states that using Customer Connect is necessary to provide monthly on-bill credits for subscribers without utilizing the Companies' existing billing systems, which Duke asserts would render the program cost-prohibitive.[38] Although it appears that Customer Connect would facilitate these billing services, the Customer Connect implementation is linked to a schedule unrelated to Shared Solar, would significantly delay Tranche 1 implementation, and could be subject to potential additional delay. Duke's reply comments state that Customer Connect is currently scheduled to be implemented in DEP in early 2022 and DEC in early 2023, nearly 4 and 5 years away, respectively.[39] As Duke notes, the shift to Customer Connect will require "aligning the timing of the Program facilities coming online with the implementation of Customer Connect."[40] 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.[41]

As an alternative, the Sierra Club requests that Duke, for the purposes of Tranche 1, thoroughly evaluate whether it can utilize Clean Energy Collective's services to bill customers the monthly Shared Solar fee or credit statement, in lieu of an on-bill credit.

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[37] *Id*. at 4,6-8.
[38] *Id*. at 7.
[39] *Id* at 4. Duke's comments also estimate Customer Connect implementation to be completed in late 2021 and 2022 (p. 7).
[40] *Id*. at 8.
[41] Docket No. E-7, Sub 1146, Direct Testimony of Retha Hunsicker at 11 (Aug. 25, 2017).

Duke describes CEC as "the largest community solar developer in the country", which is able to provide a wide range of services.[42]

CEC's website states that "CEC's proprietary software automatically calculates monthly credits for members and integrates with the utilities' existing billing system."[43] Even if CEC was unable to integrate its services with Duke's existing billing system, CEC's range of services suggests that it may be able to send subscribers monthly Shared Solar fee or credit statements at a lower cost than if Duke handled this process itself, and Sierra Club requests that Duke inquire into the availability of this option and provide the results of this inquiry. With respect to Sierra Club's concern – discussed above – that some of the services CEC could provide to Duke may be superfluous, the Companies' inquiry into CEC billing assistance in lieu of Customer Connect should be considered along with potential reductions in other proposed CEC services in order to minimize costs.

While this potential solution would likely not allow Tranche 1 customers to receive direct on-bill credits, Sierra Club considers a shorter Tranche 1 timeline that is not linked to Customer Connect to outweigh the need for on-bill credits in this first tranche, and the Sierra Club would not object to this approach.

e. Process and Timeline

Duke's revised program has not included an adequate description of the new Shared Solar subscription process or timeline. Duke states that under the revised program "an eligible customer wishing to subscribe to the Program will submit a request for a specific number of shared solar blocks to DEC or DEP for service under the applicable

[42] Duke Reply Comments at 12-13.
[43] Clean Energy Collective, About CEC, http://www.cleanenergyco.com/.

rider."[44] It is unclear from Duke's reply comments when subscribing customers will pay the one-time fee, when Duke will begin marketing the program, and what constitutes sufficient customer interest to allow the Tranche 1 projects to move forward.

Duke states that using Customer Connect will require "aligning the timing of the Program facilities coming online with the implementation of Customer Connect."[45] Duke continues, "[D]uring the lead-up to the availability of Customer Connect, the Companies plan to continue working on Program implementation, including completing the RFP, and potentially entering into PPAs and marketing the program."[46] This does not sufficiently describe program administration. Duke also does not describe when it anticipates entering into the Tranche 1 PPAs. If 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%.[47] In 2023 the ITC will be reduced permanently to 10%. Because 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.

f. <u>Low and Moderate Income Customers</u>

Duke continues to maintain that it is not feasible to incorporate a low- and moderate-income ("LMI") customer component into Tranche 1.[48] Instead, Duke thinks it is appropriate to wait to design an LMI component until the Companies "can gain

[44] Duke Reply Comments at 13.
[45] *Id*. at 8.
[46] *Id*.
[47] 26 U.S.C. § 48.
[48] Duke Reply Comments at 26.

experience and knowledge on these issues."[49] Duke states that for the purposes of Tranche 1 it is not opposed to third parties providing independent funding assistance to low income customers who wish to subscribe to the program.

At a minimum, the Sierra Club requests that Duke make a firm commitment to an LMI component in future tranches. For Tranche 1, it would be appropriate 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 should also 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.

g. Transferability and Portability

Duke's revised Shared Solar plan would not allow customers to transfer a Shared Solar subscription under any circumstances.[50] This is a change from the initial proposal, which allowed customers to transfer subscriptions in the limited cases of death or divorce. The Sierra Club recommends that subscribers maintain the ability to designate a beneficiary under these limited circumstances, which would include acknowledgement by the beneficiary of the monthly payment obligation associated with the subscription.

Duke also states that "when a subscriber cancels a subscription, for any reason including moving outside the utility service area or otherwise, the Companies will offer that subscription to the next customer on the Program wait list in order to keep each

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[49] *Id*. at 28.
[50] *Id*. at 16.

community solar facility fully subscribed."[51] Duke makes clear that a subscription may be cancelled if a customer moves outside of the existing service territory, but the revised plan does not describe when a customer may cancel a subscription for reasons other than discontinuing electric service.[52] 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.

The revised plan also does not describe the one-time fee that customers on a waitlist will pay if a current subscriber leaves the program and the waitlisted customer is able to purchase the subscription. The Companies reference a Public Staff recommendation to allow subscribers to cancel the subscription and receive a pro rata share of any fee returned based on the size of the subscription.[53] The Sierra Club agrees that customers who cancel a subscription should receive a pro rata share of their one-time fee returned 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. This language could be included on page 2 of Riders SSR and SSR-3, "General Provisions."

Duke also proposes to allow customers who move within their existing service territory to keep their subscription, even if the customer moves outside of the county or adjacent county of the solar facility, or 75-mile radius if approved by the Commission.[54] The Sierra Club does not object to this proposal and considers the statutory requirement

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[51] *Id*.
[52] Proposed Rider SSR and Rider SSR-3 at 2 ("General Provisions").
[53] Duke Reply Comments at 15.
[54] *Id*. at 15-16.

to be fulfilled if the customer initially enrolls in the program within the appropriate geographical requirements.

h. Final Program Review and Approval

Duke's revised Shared Solar plan does not establish the final subscription costs for Tranche 1. The Sierra Club acknowledges that some of these costs cannot yet be finalized but notes that as a result, the revised program does not appear to comply with the filing requirements in G.S. 62-126.8(e)(5) and R8-72(c) that require the Companies to identify and explain program charges. Because the Companies should be more capable of providing these final numbers after the Shared Solar RFP has been completed and winning bids have been selected, the Sierra Club proposes the following process to allow intervenors and the Commission sufficient opportunity to review Duke's final Shared Solar program costs: after Duke receives project bids and selects the Tranche 1 projects, it works to finalize administrative costs. This includes coordinating with the Sierra Club and other interested stakeholders regarding potential marketing partnership commitments or other assistance to reduce program costs. Based on the resulting PPA and administrative costs, the Companies would also re-evaluate the allocation of the one-time fee and the monthly fees to reduce overall program cost (discussed in Section 2.a) while still being mindful of high one-time fees that may limit customer subscriptions. The Companies would then file the final program numbers with the Commission with the opportunity for intervenor comment before final Commission approval.

CONCLUSION

As discussed herein, while a number of the changes Duke has made in its revised program may help establish a successful Shared Solar program, the Sierra Club is concerned that overall program costs are still too high, some proposed costs may be duplicative or unnecessary, and linking Tranche 1 to the Customer Connect timeline will result in an undue delay in program implementation. The Sierra Club respectfully requests that after completing the Shared Solar RFP capped at Duke's avoided cost, Duke works to finalize program costs in an effort to minimize overall costs, with stakeholder input as appropriate, and submits final program numbers to the Commission for intervenor comment and Commission approval. Prior to or during this review, Duke should also evaluate viable alternatives to linking the Tranche 1 timeline to Customer Connect, and report these findings to the Commission.

The Sierra Club respectfully submits these reply comments for the Commission's consideration.

Respectfully submitted this 25th day of June, 2018.

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CERTIFICATE OF SERVICE

I certify that a copy of the foregoing Reply Comments of the Sierra Club, as filed today in Docket Nos. E-2, Sub 1169 and E-7, Sub 1168, has been served on all parties of record by electronic mail or by deposit in the U.S. Mail, first-class, postage prepaid.

This 25th day of June, 2018.

s/ Peter D. Stein