**STATE OF NORTH CAROLINA**
**UTILITIES COMMISSION**
**RALEIGH**

DOCKET NO. E-2, SUB 1167
DOCKET NO. E-7, SUB 1166

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

| In the Matter of | | |
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| Application of Duke Energy Progress, LLC, | ) | ORDER MODIFYING FOURTH YEAR |
| and Duke Energy Carolinas, LLC, for | ) | OF SOLAR REBATE PROGRAM AND |
| Approval of Solar Rebate Program | ) | REQUESTING ADDITIONAL |
| Pursuant to N.C. Gen. Stat. § 62-155(f) | ) | COMMENTS |

BY THE COMMISSION: Pursuant to Part VIII of House Bill 589 (Session Law 2017-192) enacting N.C.G.S. § 62-155(f), Duke Energy Progress, LLC, and Duke Energy Carolinas, LLC (collectively, Duke or the Companies), jointly filed a proposed solar rebate program on January 22, 2018, which was approved by Commission order dated April 3, 2018. Pursuant to Ordering Paragraph No. 3 of that order, Duke is required to file an annual report on or before April 1 of each year including specific information about program participation and any proposed changes to the solar rebate program.

On April 1, 2020, Duke filed its solar rebate program annual report for calendar year 2019 and a request to amend program application windows for calendar years 2021 and 2022 (2019 Annual Report).

On April 7, 2020, the Commission issued an Order Allowing Comments on 2019 Annual Report. The following parties submitted comments on Duke's 2019 Annual Report: the Public Staff, the Southern Alliance for Clean Energy (SACE), and the North Carolina Sustainable Energy Association (NCSEA). In addition, Southern Energy Management, Pisgah Energy, Inc., 8M Solar, Palmetto Clean Technology, and Eagle Solar and Light filed statements of position primarily in support of NCSEA's comments. Reply comments were filed by the Public Staff, Duke, SACE, and NCSEA. Both Duke and the other commenters recommend that changes are needed in the fourth and fifth years of the solar rebate program.

## INTRODUCTION

Subsections (1) through (3) of N.C.G.S. § 62-155(f) provide for solar rebates to residential and nonresidential (for-profit and nonprofit) customers totaling 10,000 kW of installed capacity annually for five years (calendar years 2018-2022), including an annual capacity cap of 5,000 kW for nonresidential customer installations, of which 2,500 kW is specifically set aside for nonprofit organizations. Further, N.C.G.S. § 62-155(f) limits the incentives for residential customer installations to 10 kW and nonresidential customer installations to 100 kW.

The solar rebate program is past its mid-point, having nearly completed three years with two years remaining. The program's costs are recoverable from ratepayers pursuant to the rider established in N.C.G.S. § 62-133.8(h). N.C.G.S. § 62-155(f).

For the initial three years, the program has included a single annual application window with rebates claimed on a first-come, first-served basis in the order the applications were received. Current incentives are as follows:

| Customer Class | Current Rebate ($/W) | Maximum Capacity Eligible for Rebate | Maximum Rebate |
|---|---|---|---|
| Residential | 0.60 | 10 kW | $6,000.00 |
| Commercial | 0.50 | 100 kW | $50,000.00 |
| Nonprofit | 0.75 | 100 kW | $75,000.00 |

The demand for the solar rebates is extraordinary and significantly exceeds the supply provided for in N.C.G.S. § 62-155(f) with the exception of the nonprofit customer class.

Duke experienced technical difficulties with its online solar rebate application process in 2020, explaining:

> [T]he Companies opened their application process for 2020 at 9:00 a.m. on January 2, 2020, and they reached non-residential and commercial maximum capacity limits at 9:19 a.m. for DEP and 9:21 a.m. for DEC on January 2, 2020. Applications received after 9:19 a.m. for DEP and 9:21 a.m. for DEC were placed on the waiting list. The Companies, however, quickly became aware of issues with the application process. The Companies realized that certain customers had been unable to submit their applications to the Companies through the webpages. The Companies investigated the issue and determined that their websites did not perform as expected due to a recent migration of infrastructure to the cloud. The surge in applications received at the opening of the window did not cause the technical issue, but it did exacerbate the then unknown, but still pre-existing, problem. Although users were provided with messages confirming their applications had been properly submitted, the form data was not successfully loaded into the Companies' database. Alternatively, some users did not receive any notifications. The Companies have been working through the issues, and when the Companies determine that a customer had applied before capacity was reached in their service territories, the customer's request for a solar rebate has been honored.

2019 Annual Report at 7-8.

## PRIMARY RECOMMENDATIONS OF THE PARTIES

### Additional Annual Application Window

In its 2019 Annual Report Duke states that in order to avoid a repeat of the technical difficulties experienced during the 2019 program application process, it is committed "to perform the necessary technical fixes" and further proposes "to include an additional application window to lessen the urgency of applying on January 2 and to spread the market over the course of a year." Further, Duke states:

> Feedback from installers and developers indicated that opening the application windows only on the first business day of the year has caused issues with selling solar systems throughout majority of that calendar year. To assist with selling systems throughout the year, the Companies propose releasing half of the capacity on the fifth business day of January and the other half of the annual capacity on the fifth business day of July. The waiting list from January would cancel on June 30, and the waiting list from July would cancel on December 31. Splitting the capacity would allow customers two opportunities per year to receive a rebate reservation, installers would be able to sell systems to customers year-round and this should decrease the volume of applications received on the day of the launch. It may also alleviate some of the traffic on the solar rebates page the first business day of the year.

2019 Annual Report at 8.

The Public Staff notes in its initial comments that Duke's proposal to add an additional annual application window "will necessarily increase the administrative costs associated with the Program," and the Public Staff recommends that if the Commission grants Duke's request that it also "reduce the residential and non-residential rebates in order to cover any increased administrative costs." Public Staff Initial Comments at 4.

The Public Staff also expresses concern that "instead of solving the problems experienced during the single enrollment window in 2020, some of the same challenges would be faced twice a year, instead of only once." *Id.* The Public Staff hypothesizes that "the solar industry would still experience a drop off of installations in the period between when the subscription limit is reached and the beginning of the 90-day window for the next enrollment period — similar to the current drop off experienced today." *Id.*

The Public Staff forecasts that adding a second application window will "likely increase the number of applications being both submitted and rejected each year, as well as creating two windows where solar rebate customers and installers would be competing in a very short timeframe for an even smaller amount of solar capacity available during each enrollment window . . . ." *Id.*

In their respective initial comments, NCSEA states that it supports biannual releases of capacity as proposed by Duke, and SACE states that it does not oppose Duke's proposal to include an additional application window in July.

In its reply comments Duke estimates that the administrative cost of adding a second round of applications would be $15,000, which it characterizes as a minimal increase compared to the total administrative cost of $500,000 for the program in 2019. Duke opposes the Public Staff's recommendation that the additional administrative cost be offset by reducing the residential and nonresidential rebates, contending that reducing rebates to offset the additional cost of a second application window "increase[s] the risk that customers who have already contracted for installation of solar systems based on the anticipated [sic] of a certain rebate amount will be further disadvantaged." Duke Reply Comments at 3.

In the Public Staff's reply comments it states that if the Commission is not inclined to transition to a lottery system, it does not object to Duke's proposal to add an additional annual application window so long as any additional administrative costs are either minimal or offset by reductions in the rebates.

In its reply comments NCSEA states that it does not oppose retaining a single annual application window.

**Lottery System to Allocate Residential and Commercial Rebates**

The Public Staff proposes that a better way to handle the significant competition for rebates within the residential and nonresidential customer classes "would be for Duke to change the way it awards solar rebates entirely, moving from a first-come-first-served program to a lottery program." *Id*. at 4-5. The Public Staff proposes that under a lottery system Duke would accept rebate applications for a set period and then randomly select applications until the subscription limits are reached or the applicant pool is exhausted. The Public Staff notes that utilities in other states have utilized lottery systems to address rebate programs where demand exceeded supply and that the New Hampshire Public Utilities Commission recently adopted a lottery system for its Renewable Energy Incentive Program for Commercial and Industrial Solar Projects. On the downside, the Public Staff notes that it "has raised the lottery approach with solar developers and Duke, and recognizes that the administrative time and costs of setting up such a proposal may pose challenges to implement over the final two years of the Program." *Id*. at 5. However, the Public Staff opines that "such changes may be appropriate to ensure that all customers interested in participating in the Program have equitable access to the limited supply of available incentives." *Id*.

In its reply comments Duke states that it is willing to implement the lottery system proposed by the Public Staff: "There are advantages and disadvantages to first-come, first-served systems and to lottery systems. Generally, first-come, first-served programs allow customers to have more control, while lottery systems avoid a frenzied rush and allow more opportunities to address issues which may arise." Duke Reply Comments

at 1-2. Duke further states that it is "prepared to institute a lottery system for the remaining years of the program should the Commission adopt that approach." *Id*. at 4. Duke posits that "[w]hether the program is conducted as first-come, first-served program or as a lottery, biannual releases of capacity will assist solar installers with marketing on a more consistent basis," *id*. at 5, and requests that the Commission "allow the Companies to hold biannual lotteries in January and July for the remainder of the program." *Id*. at 7.

In its reply comments NCSEA expresses opposition to the Public Staff's lottery proposal, stating that "a lottery system would actually be more unfair for customers by doing away with what limited control they currently have over whether they will receive a rebate." NCSEA Reply Comments at 8. NCSEA states that its member solar installers are universally opposed to a lottery system:

> Under the current first-come, first-served paradigm, solar installers can work with their customers to ensure they have the greatest chance of receiving a rebate. For this reason, several of NCSEA's members are willing to bear the additional financial risk of offering to pay part of, or refund the value of, the rebate to a customer if they are unsuccessful in their application. By increasing the risk by moving from a first come, first-served system to a lottery system, it may be come untenable for installers to continue offering this benefit, causing prices to rise for all rooftop solar adopters. NCSEA and its members believe that moving to a lottery system will not drive customer participation or increase rooftop solar adoption.

*Id*. at 9.

NCSEA also opines that transitioning to a lottery system will increase the likelihood for additional technical issues. NCSEA finally states that if the Commission decides to adopt the Public Staff's lottery proposal that it also delay implementing the lottery system until the mid-year 2021 or 2022 application window and require Duke to file for Commission approval a lottery implementation plan, "including the costs associated with its implementation to demonstrate that the lottery approach costs less to implement than the current first-come, first-served system with which installers and customers are already familiar." *Id*. at 9-10.

Finally, SACE states its opposition to the Public Staff's lottery proposal, opining that switching to an entirely new system will lead to additional complications.

**Maximum Capacity Eligible for Incentives**

Regarding customer expectations for rebates, NCSEA states:

> [C]ustomers are signing contracts and installing rooftop solar without any expectation that they will receive a rebate. Given the fact that rebate allocations for the residential and nonresidential sectors have been exhausted in less than 90 minutes for the past two years, customers can no

> longer expect to receive a rebate. NCSEA's conclusion has been reinforced in conversations with its members, which has revealed that fewer installer companies are including the value of the rebate in the financial calculations that they provide to their customers.

NCSEA Initial Comments at 3. NCSEA opines, "If customers cannot depend on receiving a rebate, and are not factoring it into their financial decisions, then there is no harm in making changes now for the 2021 rebate allocation that will benefit more rooftop solar adopters." *Id.*

NCSEA further states that "the solar rebate program is no longer incenting customers to adopt rooftop solar because not enough customers are able to participate" and urges the Commission to adopt changes to the program to fulfill the legislative intent of N.C.G.S. § 62-155(f) — "to drive increased adoption of rooftop solar" — by taking "action to expand the number of customers who can participate in the program." *Id.* at 4.

NCSEA acknowledges that the "overall size" of the solar rebate program is determined by N.C.G.S. § 62-155(f); however, NCSEA proposes two cost-neutral changes to the program that it contends would "expand the number of customers who can participate in the rooftop solar rebate program" without violating the size limitations codified in N.C.G.S. § 62-155(f). *Id*. at 4. Per NCSEA,

> N.C. Gen. Stat. § 62-155(f) states that the solar rebate "incentive *shall be limited to* 10 kilowatts alternating current (kW AC) for residential solar installations and 100 kilowatts alternating current (kW AC) for nonresidential solar installations." (emphasis added). Notably, the statute does not say that the incentive *shall be* 10 kW and 100 kW. The General Assembly could have provided this direction to the Commission but chose not to do so. Instead, the General Assembly has afforded the Commission the discretion to change the maximum system size for rebate availability, so long as the maximum size does not exceed 10 kW AC for residential solar installations and 100 kW AC for non-residential solar installations.

*Id*. at 4-5.

NCSEA proposes to amend the solar rebate program requirements to have a maximum residential customer rebate of 5 kW and a maximum rebate of 50 kW for for-profit nonresidential customer installations. NCSEA clarifies that it does not propose any change to the nonprofit set-aside established by N.C. Gen. Stat. § 62-155(f)(3). NCSEA notes:

> Changing the limits for these systems to 5 kW and 50 kW would not double the supply of rebates, but would significantly increase the supply. The change

> would also be revenue neutral, since the cumulative capacity of these rebate allocations would be unchanged.

*Id*. at 5.

Alternatively, NCSEA proposes to change the rebate program to use a "1:1 ratio for rebate-eligible and rebate ineligible solar," in which

> every kW of installed solar capacity that is eligible for the rebate also be paired with a kW of installed solar capacity that is not eligible for the rebate, up to a 10 kW rebate for residential installations and a 100 kW rebate for nonresidential installations that are not nonprofit installations.

*Id*. at 6. NCSEA opines that such a change to the rebate program "substantially increases the number of ratepayers in these segments who would be able to participate in the solar rebate program; since rebates would be based on smaller eligible system sizes, more systems could be installed under the statutory limit contained in N.C. Gen. Stat. § 62-155(f)(1)." *Id*. NCSEA further notes that "by reducing the dollar amount of the rebates that ratepayers would receive, it also reduces the negative financial impact for customers who are waitlisted and ultimately do not receive a rebate." *Id.* As with its primary proposal, NCSEA does not propose that the 1:1 ratio apply to nonprofit customers.

NCSEA states that its proposed changes

> do not increase the overall cost of the rebate program, but could potentially increase administrative costs . . . . While any increase in administrative costs should be minimized, NCSEA notes that the overall costs of DEC and DEP's compliance with N.C. Gen. Stat. § 62-133.8 have consistently been below the cost caps established in N.C. Gen. Stat. § 62-133.8(h)(4). Accordingly, NCSEA believes that increases in administrative costs associated with greatly expanding the availability of solar rebates, which should be minor, are reasonable and warranted.

*Id.* at 10-11.

In its reply comments Duke notes:

> While NCSEA's proposals benefit solar installers by getting rebates to more participants, it [sic] appears to be more disruptive for residential and non-residential customers than the Public Staff's proposal. Whereas the Public Staff's proposal involves a minimal reduction to the incentives for residential and non-residential customers to provide extra incentive to non-profits, NCSEA's proposal essentially takes half of the existing incentives from eligible residential and non-residential customers to make

> room for more residential and non-residential customers, while providing no additional incentive for non-profits.

Duke Reply Comments at 6.

In its reply comments the Public Staff expresses opposition to NCSEA's proposed program changes, contending that NCSEA's proposal to modify the eligible size limitations is violative of the requirements set forth in N.C.G.S. § 62-155(f). The Public Staff opines that the statutory language of N.C.G.S. § 62-155(f) that the solar rebate incentive "shall be limited to 10 kilowatts alternating current (kW AC) for residential solar installations and 100 kilowatts alternating current (kW AC) for nonresidential solar installations" is a "recognition by the General Assembly of the reality that solar installation size and capacity will vary by each customer — for example, many residential installations will be less than 10 kW, but others will be larger." Public Staff Reply Comments at 4. The Public Staff argues that the General Assembly established an "upper threshold [of up to 10 kW for residential customers and 100 kW for non-residential customers] for determining the portion of an installation that would be eligible for the rebate." *Id.* The Public Staff contends that the plain language of the statute prohibits the Commission

> from adopting a limit on incentive eligibility that is less than the capacity amounts called for in the statute. If the Commission were to amend the rebate program such that only the first 5 kW of each residential installation or the first 50 kW of each nonresidential installation were eligible to receive the rebate, they would be substituting their judgment for that of the General Assembly over the appropriate amount of capacity to incentivize at each facility.

*Id.* at 5-6.

The Public Staff also objects to NCSEA's proposal to allow the incentive to be applicable to only one-half of the capacity at each facility:

> While on its face the proposal does not directly assign the incentive to more than 10,000 kW, from a practical perspective a solar rebate customer must install one kW to get the next one incentivized. This "BOGO" incentive structure is, in effect, still incentivizing every kW installed up to the eligibility limit, despite NCSEA's statements otherwise. In addition, by not applying the pro-rata approach to the capacity eligible for the non-profit set-aside established by the General Assembly, NCSEA's proposal would potentially result in a larger amount of capacity being incentivized for residential and non-residential customers, counter to the specific division of capacity established by the General Assembly. Further, proposing to limit the eligible capacity to only the first half of the capacity installed at each facility would likely prove confusing to customers and parties marketing the Solar Rebate

> Program, and may further complicate implementation of the Program for the remaining two years that it is offered.

*Id.* at 6.

While the Public Staff contends that "the plain language of the statute is clear and unambiguous" in prohibiting the modifications proposed by NCSEA, the Public Staff also argues that the legislative intent underlying HB 589 — including the net metering rates established via N.C.G.S. § 62-126.4 — further prohibits NCSEA's proposals:

> As part of its developing the comprehensive reforms enacted in H589, the General Assembly made a determination to further incentivize a specific capacity of net metered solar facilities through the Solar Rebate Program over the 2018-2023 timeframe, but also directed the electric public utilities to investigate "the costs and benefits of customer-sited generation" and for the Commission "to establish net metering rates under all tariff designs that ensure that the net metering retail customer pays its full fixed cost of service." These elements should be read *in pari materia* with the rest of H589 and cannot be viewed in isolation. Therefore, for the Commission to incentivize a larger amount of capacity through the Solar Rebate Program to be installed and receiving service under the current net metering tariff would be counter to the clear intent of the General Assembly in enacting these provisions in H589.

*Id.* at 7-8.

In its reply comments NCSEA disagrees with the Public Staff's interpretation of the General Assembly's legislative intent but does not addresses the Public Staff's primary position that the plain language of the statute is clear and unambiguous in prohibiting the modifications to the eligible size limitations proposed by NCSEA. First NCSEA distinguishes between interpreting a single statute using the principle of *in pari materia* and a session law, which modifies multiple statutes, as was the case with HB 589. NCSEA argues that the legislative intent behind HB 589 was to increase customer access to clean energy. NCSEA further argues that "the General Assembly intended for N.C. Gen. Stat. § 62-155(f) to encourage a specific behavior — the adoption of rooftop solar." NCSEA Reply Comments at 3. NCSEA argues:

> In implementing N.C. Gen. Stat. § 62-155(f), the Commission should consider this legislative intent to encourage and expand the adoption of rooftop solar. As the Commission is now faced with a decision to either adopt NCSEA's proposal to improve the program or the Public Staff's proposal to limit its effectiveness, the Commission should recognize the legislature's intent that the rooftop solar rebate program should encourage customers to adopt rooftop solar.

*Id*.

SACE states that it supports NCSEA's proposal to lower the limits on rebate-eligible solar installations to 5 kW for residential customers and 50 kW for commercial and industrial customers, and in its reply comments SACE argues that "there is good reason to believe that NCSEA's proposal would increase installations among residential and commercial or industrial customers by making more rebates available to satisfy pent-up demand, thereby increasing the success of the program and providing stability for the clean-energy industry in a time of significant economic uncertainty." SACE Reply Comments at 3.

**Adjust Rebate Amounts**

The Public Staff notes that the current incentive amounts were based in part on the price of installing solar systems in or around January 2018 and were designed "prior to the utilities gaining any experience in North Carolina on the customer response to the incentive amounts." Public Staff Initial Comments at 2. The Public Staff further notes:

> [T]he Lawrence Berkeley National Lab (LBNL) estimates that over the 2017-2018 period, residential and small nonresidential solar installations dropped across the country by a median of $0.20 per watt, which was consistent with trends over the prior five years. These estimates align with many other sources, which point to continued declines in solar installation costs across the country, including in North Carolina, although at a slower rate than from 2009-2014.

*Id.* As such, the Public Staff recommends adjusting the rebate amounts "to ensure that the incentives being offered for each customer class are reasonable[,]" and it proposes "a revenue-neutral adjustment" to reduce the residential and nonresidential rebates and increase the nonprofit rebates, as shown below. *Id.* at 3.

| Customer Class | Current Rebate ($/W) | Proposed Rebate ($/W) | Current Maximum Rebate | Proposed Maximum Rebate | Delta |
|---|---|---|---|---|---|
| Residential | 0.60 | 0.50 | $6,000.00 | $5,000.00 | -17% |
| Commercial | 0.50 | 0.40 | $50,000.00 | $40,000.00 | -20% |
| Nonprofit | 0.75 | 1.00 | $75,000.00 | $100,000.00 | +33% |

The Public Staff states that based on its estimates for the next two years, it believes that its proposal will result in increased participation from the nonprofit customer class and lower overall program costs for the residential and nonresidential customers classes. The Public Staff finally notes that reducing the residential and nonresidential rebates "may affect some customers who currently plan to install their systems beginning in October 2020 and would then be eligible to apply in January 2021; however, we note that rebates, including the specific amount of each rebate, is never guaranteed for any customer." *Id.*

Relevant to the Public Staff's proposal to change the dollar per watt rebate amounts, in its 2019 Annual Report Duke states that it has "not received complaints from stakeholders regarding the incentive amounts." 2019 Annual Report at 5. Duke notes that in its last program report it considered changing the incentive amounts for the 2021 program:

> In the past six months, however, the Companies have received two strong indications that non-profits needed more time than for-profit entities to participate in the program, not that non-profits were seeking an increased rebate amount to spur participation. First, solar developers now report that non-profits have secured their funding and are ready to move forward on projects. Second, North Carolina city and county governments have reported that they will be utilizing the rebates program to help them achieve their sustainability goals. The Companies have also observed an increase in the percentage of residential and nonresidential customers installing their projects prior to receiving a rebate application from 2019 (39%) to 2020 (50%). This indicates to the Companies that customers are signing contracts with the expectation that the current rebate value will be in place when they receive their rebate.

*Id*. at 6. For these reasons, Duke hypothesizes that

> customers could be harmed, based on their expectations, by changing the rebate for the 2021 program opening. Rather than potentially disrupt expectations in marketplace in 2021, the Company is open to changing the rebate amounts in 2022. Thus, the Companies have concluded that changes to the rebate incentive amounts are not necessary at this time.

*Id.*

In its reply comments Duke revises its position — that the rebate amounts should not be adjusted — and states that it supports the Public Staff's recommendation to modify the rebate amounts.

While NCSEA recommends other alterations to the rebate structure for residential and commercial customers — modifying the maximum capacity eligible for the incentive — it does not recommend changing the existing rebate amounts of $0.60/kW and $0.50/kW for residential and commercial customers.

In NCSEA's reply comments it contends that increasing the nonprofit rebate will not result in higher nonprofit participation. Rather, NCSEA contends that the lack of participation is attributable to

> a different purchasing cycle. While a homeowner or a commercial facility manager may be able to quickly make a decision about whether to install solar on a residence or a business, a nonprofit that is governed by a

> volunteer board of directors takes significantly more time. Similarly, government agencies, which are eligible for the nonprofit rebate, need to comply with various procurement requirements.

NCSEA Reply Comments at 4. NCSEA continues that while it conceptually supports increasing the nonprofit rebate amount, "it is not willing to do so to the detriment of residential and commercial customers." *Id.* at 5. Notably, NCSEA calculates that under the Public Staff's proposal an 8 kW residential solar installation would receive a rebate of approximately $4,000, whereas under its first proposal to modify the maximum capacity eligible for incentives the same residential solar installation would receive a rebate of $3,000, or $2,400 under its second proposal. *Id.* at 5-6.

Further, NCSEA notes that the federal Solar Investment Tax Credit (ITC) is slated to end for residential systems in 2022 and decline to 10% for commercial and utility scale systems. NCSEA argues that reducing the rebate amounts for customers with tax liabilities right before the ITC expires without allowing for additional customers to participate will "weaken the market for residential and commercial clean energy right when the market will be recovering from our current economic downturn and also dealing with the expiration of the ITC." *Id.* at 6.

Also, NCSEA counters the Public Staff's justification for reducing the residential and commercial rebates, that solar installation costs are decreasing both nationally and in North Carolina, by noting that the same study cited by the Public Staff also found that "the price of residential solar in North Carolina remains more expensive than in other states, in no small part due to regulatory uncertainty leading to slower consumer adoption than in neighboring states such as South Carolina." *Id.* at 6.

Finally, NCSEA opposes the Public Staff's proposals to further reduce rebates by any increase in administrative costs and marketing expenses. NCSEA contends that reducing rebates by estimated costs will cause the rebates to be unclear and difficult to calculate, presenting problems for both solar installers and customers, and will result in "an unacceptable amount of regulatory uncertainty." *Id.* at 8.

In SACE's reply comments it expresses concern that altering the rebates is not "well matched to the availability issues that the rebate program has experienced." SACE Reply Comments at 2. SACE opines that a lower rebate amount likely would not be sufficient for many customers. SACE distinguishes between the Public Staff's proposal to reduce residential and for-profit nonresidential rebates and NCSEA's proposals, which would also effectively reduce the size of the rebates that would be received by these customers. SACE opines that "whereas NCSEA's proposal would increase installations by effectively doubling the number of rebates available for these customers, the Public Staff's proposal would at best keep these installations constant while simply reducing the amount of the rebate each receives." *Id.* at 2. SACE states that it strongly supports increasing funding for nonprofit customers to install solar but prefers that it be accomplished without reallocating rebate funding from other customer classes. SACE also contends, "[t]here is insufficient information at this time to tell whether the Public

Staff's proposal is the best solution, because it is not clear at this point whether the rebate level is the main barrier to nonprofit enrollment." *Id.* at 2. Rather, SACE suggests that "nonprofits' relatively long sales cycle" may be responsible for low participation in the nonprofit sector.

## ADDITIONAL PROPOSALS

In its 2019 Annual Report, Duke states that it intends

> to continue to keep the 90-day window for both launch dates. The projects completed within 90 days of the launch date would be eligible to apply. The time frames for completion would be December 31 for residential customers who obtain a reservation in January and June 30 for residential customers who obtain a reservation in July. Non-Residential customers would still have 365 days from the date of the executed interconnection agreement, unless they had a project under 20 kW-AC. In those cases, non-residential customers with a project under 20 kW-AC would continue to have 365 days from the date the rebate reservation was obtained.

2019 Annual Report at 8-9. In response, the Public Staff states that "the current 90-Day Rule in the Solar Rebate Program, which requires a customer to apply no later than 90 days following the installation of a qualifying solar PV system, provides a sufficient timeframe for those customers seeking to apply for the available capacity in the next enrollment window." Public Staff Reply Comments at 9. NCSEA supports Duke's proposal to retain the 90-day eligibility window for systems installed before a rebate application is made.

Duke also proposes to increase its marketing to nonprofits, including city governments, with the goal of increasing nonprofit participation in the program. In response, the Public Staff argues that "[t]o the extent that this increased marketing activity increases Program costs for marketing, this increase should be used to reduce the Public Staff's proposed non-profit rebate . . . in order to maintain revenue-neutrality." Public Staff Initial Comments at 3-4.

In its initial comments NCSEA proposes that

> given the ongoing uncertainty of stay-at-home orders due to COVID-19, the economic impacts of the pandemic, and the potential for a second wave of the pandemic in the fall or winter, . . . the first such biannual application period should open in October 2020. Advancing the opening of the 2021 application period would provide certainty to customers applying for the rebate, and potentially address Duke's concern regarding customers applying for rebates after installing rooftop solar; advancing the opening would also provide business certainty for rooftop solar installers.

NCSEA Initial Comments at 8-9.

Finally, NCSEA requests that Duke file the results of its application process "stress-test" with the Commission. Duke notes that if "the Commission adopts a lottery, the stress-test is no longer necessary because the 'stress' is caused by the rush of a first-come, first served process." Duke Reply Comments at 6. However, if the Commission does not adopt a lottery system, then Duke states that, if necessary, it agrees to provide the results of the stress test.

## DISCUSSION AND CONCLUSIONS

The objective of the legislative solar rebate program is to provide an economic incentive for residential, commercial, and nonprofit customers to adopt solar power by reducing the upfront cost of installing solar equipment. The program has proven to be extremely popular, and the demand for rebates greatly exceeds the limited supply — the rebates annually available to residential and for-profit nonresidential customers are fully subscribed within minutes. As NCSEA notes, however, because so few solar customers are guaranteed a rebate, the ratepayer financed program does not appear to be fulfilling its purpose of driving the adoption of solar.

Based upon the forgoing, the Commission agrees that modifications to the program are necessary to provide more customers the opportunity to participate. Thus, as detailed below, the Commission will explore revising the existing incentives to better accomplish the program's goal of creating a program that will offer "reasonable incentives to residential and nonresidential customers for the installation of small customer owned or leased solar energy facilities participating in a public utility's net metering tariff." N.C.G.S. § 62-155(f). Any actions taken by the Commission to revise the program, however, must comport with the mandates of N.C.G.S. § 62-155(f). Lastly, the Commission is cognizant of the fact that with the 90-day eligibility window some customers may be signing contracts and installing systems with the expectation that the current rebate amounts and structure will be in place for the upcoming January 2021 application period.

### Additional Annual Application Window

First, the Commission will allow Duke's request to open the 2021 and 2022 solar rebate programs for applications twice each year, in January and July. As Duke notes, splitting the capacity into two windows will (1) reduce the wait time for customers whose applications are not accepted, hopefully reducing customer frustration, and (2) assist installers and developers by spreading their sales over a greater portion of the year. Furthermore, creating a second window for applications in 2021 will enable the Commission to consider and potentially make additional modifications, consistent with the directives outlined herein, to the incentives mid-year.

Regarding the specific date for opening the application window, Duke suggests the fifth business day of the year. Rather than open the window on a Friday, which would be the fifth business day of January 2021, the Commission is of the opinion that a mid-week date would be more appropriate and convenient for customers. The Commission,

therefore, finds that it is reasonable to require Duke to open future application windows on Wednesday, January 6, 2021, Wednesday, July 7, 2021, Wednesday, January 5, 2022, and Wednesday, July 6, 2022. As noted above, the parties' comments indicate that some customers are presently making decisions based on the current structure of the program. Thus, the Commission declines to open a window for 2021 rebate applications before January 2021 as NCSEA proposes.

The Commission finds reasonable Duke's recommendation that half of the available annual capacity each year be offered in January and half in July. The Commission further agrees that the current 90-day rule — that a customer must complete and submit a rebate application no later than 90 days following installation of the system — should be applicable to the remaining application windows discussed herein.

Lastly, the Commission expects Duke to perform the necessary technical fixes and testing to avoid a repeat of the technical difficulties experienced by customers applying for rebates in January 2020 and will require Duke to file the results its "stress test" with Commission.

**Lottery System to Allocate Residential and Commercial Rebates**

While the Commission appreciates Duke's and the Public Staff's willingness to work together to implement a lottery system, the Commission is not persuaded that the administrative time and cost of doing so are justified for the final two years of the program. Moreover, with Duke's commitment to implementing system improvements and the creation of an additional application window each year, the move to a lottery is not necessary to alleviate the "stress" on the system caused by the annual rush to apply for the rebates. The Commission also finds compelling NCSEA's representation that its member solar installers are universally opposed to a lottery and its argument that moving to a lottery system will not drive customer participation or increase rooftop solar adoption. Under the current program customers know immediately whether their rebate application is successful.

**Maximum Capacity Eligible for Incentives**

Regarding NCSEA's assessment that the solar rebate program is no longer incenting customers to adopt rooftop solar because not enough customers are able to participate, the Commission is not persuaded that NCSEA's proposals to modify the program to address this issue — either reducing by half the maximum size of the systems eligible for a rebate or using a "1:1 ratio for rebate-eligible and rebate ineligible solar" — are authorized by the statute. The Commission agrees with the Public Staff that the plain language of the statute limiting the incentive to 10 kW for residential customer installations and 100 kW for nonresidential customer installations prohibits the Commission from adopting a limit on incentive eligibility that is less than the capacity amounts set forth in the statute. The General Assembly determined the appropriate size of facilities to incentivize for residential and nonresidential customers, and the Commission declines to substitute its judgement for that of the legislature. The

Commission, therefore, declines to implement either recommendation proposed by NCSEA.

**Adjust Rebate Amounts**

Consistent with the parties' comments that to the extent customers' decisions to install solar systems are driven by the availability of rebates, the Commission is persuaded that for the application window opening on Wednesday, January 6, 2021, the incentives should remain at their 2020 levels. Although the parties are divided on whether to adjust the rebate amounts, the Commission finds persuasive the Public Staff's observation that solar installation costs are dropping and further notes that rebates, which are funded by ratepayers, should reflect true and reasonable costs. As such, the Commission will give due consideration to the Public Staff's recommendation to adjust rebate amounts in the future.

The Commission, therefore, finds good cause to solicit comments recommending revised rebate amounts for residential, commercial, and nonprofit customers for consideration to be effective for the application window opening on Wednesday, July 7, 2021. The Commission is not satisfied that it has sufficient proposals before it to modify the existing program to ensure that it functions as intended while still complying with the incentive eligibility constraints set by the General Assembly. Noting that the statute describes the solar rebate program as "offering reasonable incentives to residential and nonresidential customers for the installation of *small* customer owned or leased solar energy facilities participating in a public utility's net metering tariff," N.C.G.S. § 62-155(f) (emphasis added), the Commission is particularly interested in the viability of a tiered system aimed at incentivizing smaller solar installations with a declining incentive structure up to 10 kW for residential customer installations and 100 kW for nonresidential customer installations. One way to better utilize the rebates to encourage solar installations may be to target smaller systems, which are more likely to be installed by customers with greater budget constraints and, therefore, in greater need of an incentive. Further, a tiered system recognizes that the cost of solar installation per watt goes down as the size increases. While the Commission is particularly interested in the viability and structure of a tiered system, other proposals will be considered and fully evaluated. To assist in this effort, the Commission directs Duke to include in its comments responsive to this Order information detailing the characteristics of the residential, commercial, and nonprofit installations receiving rebates, including but not limited to the distribution and average capacity of applications and installations for each customer group. Further, Duke shall include this same information in future annual program reports.

Although the Commission is not proposing herein to increase the rebate amount for non-profit customer installations, the Commission is interested in seeing increased enrollment in the nonprofit program and agrees that Duke should increase its marketing to nonprofits, including city governments, with the goal of increasing nonprofit participation in the remaining years of the program.

IT IS, THEREFORE, ORDERED as follows:

1. That Duke's motion to open the solar rebate program for applications in 2021 and 2022 twice a year, in January and July, shall be granted as modified by the requirements of this Order and subject to the conditions provided herein;

2. That in 2021 the application periods shall open on Wednesday, January 6, 2021, and Wednesday, July 7, 2021;

3. That in 2022 the application periods shall open on Wednesday, January 5, 2022, and Wednesday, July 6, 2022;

4. That 50% of the available annual capacity each year in 2021 and 2022 shall be offered in January and 50% of the available annual capacity shall be offered in July;

5. That Duke shall continue the 90-day eligibility window for systems installed prior to submitting an application for a rebate;

6. That Duke shall conduct and file the results of the application program "stress test" with Commission on or prior to Friday, December 4, 2020;

7. That the current incentive amounts of $0.60 per watt for residential customer installations, $0.50 per watt for commercial customer installations, and $0.75 per watt for nonprofit customer installations shall be effective for the application window beginning on Wednesday, January 6, 2021;

8. That Duke shall increase its marketing to nonprofit customers, including city governments, with the goal of increasing nonprofit participation in the program;

9. That on or before December 1, 2020, all parties may file initial comments addressing appropriate modifications to the current incentive amounts as directed by this Order, including a tiered rebate program as discussed herein;

10. That Duke shall include in its initial comments and in its future annual program reports detailed information regarding the characteristics of residential, commercial, and nonprofit installations receiving rebates, including but not limited to the distribution and average capacity of applications and installations for each customer group;

11. That on or before December 15, 2020, all parties may file reply comments responding to the initial comments filed by other parties; and

12. That upon receipt of the parties' comments, the Commission will proceed as appropriate in establishing rebates for the remainder of the program.

ISSUED BY ORDER OF THE COMMISSION.

This the 6th day of November, 2020.

NORTH CAROLINA UTILITIES COMMISSION

Janice H. Fulmore, Deputy Clerk

Commissioner ToNola D. Brown-Bland did not participate in this decision.