

**BEFORE THE NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-2, SUB 1287
DOCKET NO. E-7, SUB 1261**

DOCKET NO. E-2, SUB 1287)	
)	
In the Matter of:)	JOINT REPLY COMMENTS OF
Application of Duke Energy)	NORTH CAROLINA
Progress, LLC for Approval of Smart)	SUSTAINABLE ENERGY
Saver Solar Energy Efficiency)	ASSOCIATION, SOUTHERN
Program)	ALLIANCE FOR CLEAN
)	ENERGY, AND VOTE SOLAR
)	
DOCKET NO. E-7, SUB 1261)	
)	
In the Matter of:)	
Application of Duke Energy)	
Carolinas, LLC for Approval of)	
Smart Saver Solar Energy Efficiency)	
Program)	

**JOINT REPLY COMMENTS OF NORTH CAROLINA SUSTAINABLE
ENERGY ASSOCIATION, SOUTHERN ALLIANCE FOR CLEAN ENERGY,
AND VOTE SOLAR**

The North Carolina Sustainable Energy Association (NCSEA), Southern Alliance for Clean Energy (SACE), and Vote Solar (collectively, the Joint Intervenors) submit the following reply comments pursuant to the *Order Granting Leave to File Reply Comments and Extending Time for Responses to Comments* issued by the North Carolina Utilities Commission (Commission) on March 25, 2022.

I. REPLY TO THE ATTORNEY GENERAL’S OFFICE

In its comments filed on March 15, 2022, the North Carolina Attorney General’s Office (AGO) notes that the Smart Saver Energy Efficiency program (Solar EE) applications in the above-captioned dockets are an integral part of the Memorandum of Understanding (Settlement) between Duke Energy Carolinas, LLC (DEC), Duke Energy

Progress, LLC (DEP), (collectively, Duke Energy), the Joint Intervenors, and other parties dated November 29, 2021, and filed as part of Duke Energy’s application of the same date in Docket No. E-100, Sub 180. The Settlement encompasses Duke Energy’s net metering proposal that is presented in Docket No. E-100, Sub 180, and the Solar EE proposals that are presented in the above-captioned dockets. Session Law 2021-165 (House Bill 951) sets the goal of “seventy percent (70%) reduction in emissions of carbon dioxide (CO2) emitted in the State from electric generating facilities owned or operated by electric public utilities from 2005 levels by the year 2030 and carbon neutrality by the year 2050[.]”¹ which is currently before the Commission in Docket No. E-100, Sub 179. Part III of House Bill 951 requires the North Carolina Utilities Commission (Commission) to “revise net metering rates” as part of this comprehensive legislation, which is the subject of Docket No. E-100, Sub 180. In other words, the Solar EE applications of Duke Energy should be considered in conjunction with the Settlement, the net metering docket, and the Carbon Plan proceeding in Docket No. E-100, Sub 179 because Solar EE is an element of the Settlement and serves the larger goal of implementing House Bill 951.

The AGO recommended that the Commission postpone ruling on the applications in the above-captioned dockets until related issues in Docket No. E-100, Sub 180, are decided, and notes that the investigation in Docket No. E-100, Sub 180, may not be possible

¹ As Duke Energy states in its November 29, 2021, application in the net metering dockets that are now consolidated in Docket No. E-100, Sub 180:

Although the proposed NEM Tariffs were developed prior to the enactment of H.B. 951, the Companies believe the proposed NEM Tariffs are consistent with the spirit of H.B. 951—particularly given that the revised design of the NEM Tariffs offers a more sustainable path for continued growth of customer-sited, carbon-free power generation, and the innovative rate structure and refreshed TOU periods within the tariffs will *permit this program to be utilized with future demand side management (“DSM”) and energy efficiency (“EE”) programs to further reduce carbon emissions.*

(Emphasis added).

until the Carbon Plan proceeding provides clarity on the role of residential rooftop solar in meeting the carbon reduction requirements of House Bill 951. The Joint Intervenors have no objection to the Commission considering Solar EE, net metering, and/or the Carbon Plan holistically, and would not object to the Commission consolidating the above-captioned dockets with Docket No. E-100, Sub 180. However, should the Commission decide to proceed with addressing Solar EE issues independent of the net metering and Carbon Plan proceedings, the Joint Intervenors request that the Commission proceed expeditiously with a decision in the above-captioned proceedings so that the Commission's decision can inform its analysis in the net metering docket and the necessary modeling in the Carbon Plan proceeding.

II. REPLY TO THE PUBLIC STAFF

The Public Staff comments filed March 15, 2022, maintain that the Solar EE programs do not qualify as “‘new energy efficiency’ programs pursuant to N.C.G.S. §§ 62-133.8 and 62-133.9, Commission Rule R8-68(c), and the [the Companies’ respective DSM/EE cost and incentive recovery] Mechanism” for several reasons, addressed below.

South Carolina Public Service Commission

The Public Staff argues that the programs should be rejected because the Public Service Commission of South Carolina (SC PSC) did not approve similar programs. However, as the Public Staff admits, the SC PSC has not yet explained its reasoning in a written order. *See, South Carolina Public Service Commission Directive*, Docket Nos. 2021-143-E and 2021-144-E (showing split decision, referencing South Carolina statutory provisions, and declining to provide a written explanation as to denial). Moreover, key issues in that case centered on interpretation of South Carolina law, rather than North

Carolina law. The North Carolina Utilities Commission is not bound by an unexplained order, or any order, of the Public Service Commission of South Carolina. *See, e.g., State ex rel. Utilities Comm'n v. N. Carolina*, 338 N.C. 412, 422-23, 450 S.E.2d 896, 902 (1994) (holding North Carolina Utilities Commission not bound by out-of-state decisions by Virginia State Corporation Commission and Virginia arbitrator). The North Carolina Utilities Commission makes its decisions based on North Carolina law and circumstances. The decisions of the SC PSC based on South Carolina law are not binding precedent for this Commission.

Definitions of Energy Efficiency

The Public Staff then cites to general wording from the U.S. Energy Information Administration (EIA), the American Council for an Energy Efficient Economy (ACEEE), and North Carolina treatment of Combined Heat and Power (CHP) systems. These observations are distinct from, and not particularly relevant to, the issue of Solar EE in North Carolina. EIA and ACEEE statements are not precedential for energy efficiency law in North Carolina. CHP is its own unique statutory category, allowing generation that utilizes non-renewable fuels to be defined as energy efficiency, and the existence of such a unique category does not bar the interpretation of “energy efficiency” proposed by Duke Energy and supported by the Joint Intervenors. Importantly, the statutory definition includes CHP without limitation—as a technology that is included, “but is not limited to” energy efficiency. N.C. Gen. Stat. § 62-133.8(a)(4). It would be improper to draw any conclusions from a clause that includes CHP as an example of an allowable efficiency resource when deciding whether behind-the-meter solar that results in less energy used from the grid to perform the same household functions also counts as energy efficiency.

See *N. Carolina Tpk. Auth. v. Pine Island, Inc.*, 265 N.C. 109, 120 (1965) (“The term ‘includes’ is ordinarily a word of enlargement and not of limitation. The statutory definition of a thing as ‘including’ certain things does not necessarily place thereon a meaning limited to the inclusions.”) (internal citations omitted). The Public Staff’s reliance on ACEEE’s definition is particularly misplaced given that ACEEE endorsed this same program design as an efficiency resource in South Carolina.² None of the EIA, ACEEE and CHP discussions cited by the Public Staff actually involved the specific issue of Solar EE.

The Public Staff argues that Solar EE cannot be “energy efficiency” because the proposed phrase “reduces the customer’s energy requirements from the electric power supplier needed to perform the same function,” as part of the statutory definition of “energy efficiency” was in an earlier version of House Bill 951 but was omitted from the final version. This reasoning is not valid support for the Public Staff’s position. Legislation not adopted is not evidence of legislative intent. *N. Carolina Dep’t of Correction v. N. Carolina Med. Bd.*, 363 N.C. 189, 202, 675 S.E.2d 641, 650 (2009) (recognizing the rule previously adopted by the North Carolina Supreme Court that “the intent of the legislature is indicated by its actions, and not by its failure to act.”) (citing *Styers v. Phillips*, 277 N.C. 460, 472–73, 178 S.E.2d 583, 589–91 (1971)).

Comparison to Other EE or DSM Programs

The Public Staff also argues that the Commission’s approval of a pilot Solar Thermal Water Heating Program (SWHP) (Docket No. E-2, Sub 937) as an energy

² Letter of ACEEE to SC PSC in Support of Duke Energy’s Smart Saver Solar Energy Efficiency Program (Oct. 14, 2021), Docket Nos. 2021-143-E and 2021-144-E (“ACEEE research finds that programs like the proposed Smart Saver Solar program have the potential to benefit utilities by allowing them greater influence over customer-cited generation, reduced system costs, enhanced reliability, and optimized grid performance. We have also found that such programs can help avoid transmission and distribution losses, which can increase utility system efficiency”), available at <https://dms.psc.sc.gov/Attachments/Matter/61ad4a02-f4b4-4564-ab1b-d64d50fc5519> and included as **Attachment 1**.

efficiency program is not applicable to Solar EE, whereas the Commission’s denial of a diesel fuel Commercial Distributed Generation Program (CDG) (Docket No. E-22, Sub 466) is applicable. The Public Staff reasons that SWHP is heat, not electricity. Of course, heat is energy that displaces electricity from the grid, and heat is within the “public utility” definition in N.C. Gen. Stat. § 62-3(23)a.1. Both the approved SWHP pilot and the Solar EE proposal rely on solar energy to displace electricity from the grid. Disapproval of CDG as energy efficiency is much less compelling as precedent, particularly given the policy emphasis of both Senate Bill 3 (S.L. 2007-397) and House Bill 951 on replacing fossil fuels with renewable energy.

The Public Staff’s assertion that solar photovoltaic (PV) generation is different from energy efficiency elevates form over substance. That statement begs the question: can solar energy qualify as statutory energy efficiency when it displaces electricity from the grid. The Commission has answered that in its approval of SWHP as an energy efficiency program.

To support its reasoning, the Public Staff asserts that solar generation without storage requires additional utility investment in transmission, distribution, and generation systems. This is a flawed assertion. For example, when solar PV without storage is added to an existing home, no additional investment in transmission, distribution, and generation will normally be needed, and indeed the reverse is true: the solar investment can help avoid distribution, transmission, and generation costs. The utility already has in place the capacity to serve that home in the intermittent times when the solar is not offsetting demand from the grid. As with any energy efficiency program, the same conductors to the customer are in place before and after participation in an energy efficiency program regardless of

whether the program is Solar EE or something else. As to generation, even with intermittency, Solar EE in aggregate reduces energy demand on the grid and thus incrementally can avoid some need for new distribution, transmission, and generation investments; the Public Staff's argument is really about energy at particular times and not the overall level of energy use.

Solar Rebates

The Public Staff suggests that Solar EE are just a continuation of N.C. Gen. Stat. § 62-155 solar rebates. This is not correct. Solar EE must meet the legal requirements for energy efficiency programs, including most notably cost effectiveness under a standardized test. This sets them apart, legally and factually, from solar rebates under N.C. Gen. Stat. § 62-155 (House Bill 589 Solar Rebates). However, it is relevant that Solar EE is proposed to begin as the N.C. Gen. Stat. § 62-155 solar rebates end: the end of the House Bill 589 Solar Rebates means Solar EE will be that much more appealing to customers, potentially lowering free ridership and increasing cost effectiveness through higher participation as customers learn to adopt the new, proposed time-of-use rates with critical peak pricing that are pending in the E-100, Sub 180, docket.

Free Ridership Estimates

The Public Staff challenges the free ridership estimate of Duke Energy as another route to opposing Solar EE. Duke Energy's 10% estimate is exactly that – an estimate – as with any other EE or DSM program when it is first proposed. The Evaluation, Measurement, and Verification (EM&V) process is used to gain more accurate numbers after a program has data from experience. Without examples of Solar EE-type programs in other states, Duke Energy must make a good faith estimate. This situation results from

Duke Energy exercising proactive leadership in developing the Solar EE program rather than waiting for another utility to do it first. If all utilities waited until another utility developed data before starting new energy efficiency programs, there would be less energy efficiency.

The Public Staff offers an alternative free ridership analysis based on the number of applicants for the House Bill 589 Solar Rebates who adopted solar PV even when they did not receive a rebate (the House Bill 589 Solar Rebates were quite popular and were over-subscribed). This analysis ignores the number of customers who never applied because the uncertainty of their chance of getting a House Bill 589 Solar Rebate inhibited them from investing in solar PV to start with. This also ignores the fact that the free ridership under the House Bill 589 Solar Rebates was predicated on the traditional net metering paradigm that has been in place in North Carolina for more than a decade. The Solar EE programs are predicated on the new net metering policy proposed by Duke Energy in Docket No. E-100, Sub 180, which is not as financially favorable to participants as the traditional net metering paradigm. Free ridership in the House Bill 589 Solar Rebates bears no relationship to the potential for free ridership in the Solar EE programs given the underlying shift in net metering policies. The Public Staff is putting its thumb on the scale by using inapposite data, rather than waiting to see what EM&V will show. This is a turn away from the concept embodied in the DSM/EE Mechanisms negotiated by the Public Staff and approved by the Commission, where the first couple years for a new program are a grace period for cost effectiveness.³

³ See *Order Approving Revisions to Demand-Side Management and Energy Efficiency Cost Recovery Mechanisms*, Attachment A, Para. 26-28 and Attachment B, Para. 24B-24D, Docket Nos. E-2, Sub 931 and E-7, Sub 1032 (October 20, 2020).

Participant Cost Test

The Public Staff views with concern the projected scores of below 1.0 for the participant cost test (PCT) because other approved energy efficiency programs have PCT scores above 1.0, and because it is “evidence” that incentives do not motivate many customers. The PCT scores do not mean what the Public Staff says they mean. As an initial matter, Duke’s PCT assumptions are conservative and do not consider the value of solar exports, meaning additional economic benefits would be factored into a participant’s decision-making. Moreover, many customers who install solar PV do so through a mix of environmental motives and financial motives. They may be willing to accept a PCT score below 1.0, out of desire to “green” their lifestyle and protect the environment. At the same time, many customers have a limit on how much of a financial commitment or how long a payback period they will accept to invest in clean energy at their home. Thus, an incentive, including the upfront incentive component, through the Solar EE program may well make the difference for those customers.⁴ The PCT score does not reflect those combined factors.

PPI and EM&V

The Public Staff suggests that the Distribution System Demand Response (DSDR) program is precedent for denying a program performance incentive (PPI) for Solar EE.⁵ DSDR is not persuasive precedent here; as the Public Staff states in their footnote 25, DSDR is “unique.” The proper guidelines for recovery of program costs, net lost revenues, and incentives are set out in the Mechanisms. The purpose of a PPI is to share the cost savings of an energy efficiency program between the utility (as incentive to develop and

⁴ Joint Comments of North Carolina Sustainable Energy Association, Southern Alliance for Clean Energy, and Vote Solar, Exhibit A at 6.

⁵ See, Docket No. E-2, Sub 926.

operate energy efficiency programs) and ratepayers (who should not pay for the programs unless there is a greater avoided cost benefit). Denial of PPI for a cost-effective program would undercut the foundation of energy efficiency programs.

The Public Staff concedes that EM&V contractors are often not hired at the time of an energy efficiency program application, nor are EM&V plans developed at that time. Yet they take Duke Energy to task for being in that position in the present case. Duke Energy will have to support its Solar EE programs with EM&V as a requirement for recovery of incentives and continuation of the programs. There is no basis to deny approval of Solar EE on speculation that future EM&V will be especially challenging.

Program Availability

The Public Staff contends that offering Solar EE only to all-electric customers is unduly discriminatory against gas-electric customers. The Solar EE program's restriction is not an instance of undue discrimination because there is a reasonable basis for treating differently situated customers differently. Similarly, the Commission did not find any undue discrimination when it approved the SWHP.⁶ In the present case, the Public Staff argument amounts to letting perfection be the enemy of the good. A cost-effective Solar EE program will provide avoided cost benefits greater than the costs and limiting Solar EE to all-electric (except for cooking) customers is a key component to achieving this cost effectiveness. The Public Staff would reject the good of cost effectiveness for all customers when program participation is limited to all-electric customers where there is not the perfection of open program eligibility to all Duke Energy customers at this time.

⁶ See, *Order Approving Programs*, Docket No. E-2, Sub 928 (October 14, 2008) and *Order Granting Program Approval*, Docket Nos. E-2, Sub 928, E-2, Sub 935, & E-2, Sub 937 (April 21, 2009).

Conclusion

In conclusion, the Public Staff takes a blinkered view of “energy efficiency” when it opposes Solar EE. Solar EE will result in less electric generation by Duke Energy, it will provide cost effective avoided cost benefits, it will serve the policy goals of Senate Bill 3, House Bill 951, and it is an important part of the Settlement for net metering in Docket No. E-100, Sub 180, as well as meritorious on its own.

Respectfully submitted, this the 31st day of March, 2022.

/s/ Peter H. Ledford

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CERTIFICATE OF SERVICE

I hereby certify that all persons on the docket service list have been served true and accurate copies of the foregoing filing by hand delivery, first class mail deposited in the U.S. mail, postage pre-paid, or by email transmission with the party's consent.

This the 31st day of March, 2022.

/s/ Benjamin W. Smith
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