

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. E-7, SUB 1214  
DOCKET NO. E-2, SUB 1219

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1214 )  
)  
In the Matter of )  
Application by Duke Energy Carolinas, LLC, )  
for Adjustment of Rates and Charges )  
Applicable to Electric Utility Service in North )  
Carolina )  
DOCKET NO. E-2, SUB 1219 )  
)  
In the Matter of )  
Application of Duke Energy Progress, LLC, )  
for Adjustment of Rates and Charges )  
Applicable to Electric Utility Service in North )  
Carolina )  
\_\_\_\_\_ )

**RESPONSE TO DUKE ENERGY'S  
RATE DESIGN STUDY  
QUARTERLY STATUS REPORT  
FOR THIRD QUARTER 2021**

Pursuant to the North Carolina Utilities Commission's (the "Commission") March 31, 2021 *Order Accepting Stipulations, Granting Partial Rate Increase, and Requiring Customer Notice* in Docket No. E-7, Sub 1214 (the "DEC Order") and its April 16, 2021 *Order Accepting Stipulations, Granting Partial Rate Increase, and Requiring Customer Notice* in Docket No. E-2, Sub 1219 (the "DEP Order"), NC WARN and Appalachian Voices, through counsel, hereby provide the following response to the Rate Design Study Quarterly Status Report for Third Quarter 2021 filed by Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP") (collectively, "Duke Energy") on October 21, 2021.

## **SUMMARY**

1. On October 21, 2021, Duke Energy filed a Rate Design Study Quarterly Status Report for Third Quarter 2021 (the “Status Report”) in the above-mentioned dockets. Unfortunately, the Status Report does not fully describe all material facts related to portions of the Rate Design Study dedicated to net energy metering. The purpose of the present Response is to provide the Commission with additional crucial information regarding the net energy metering portions of the Rate Design Study.

2. As discussed below, NC WARN and Appalachian Voices have repeatedly expressed concerns to Duke Energy and its facilitator, ICF, about their handling of the net energy metering issue during the Rate Design Study. Net energy metering was placed on a “fast track” process which prevented any meaningful opportunity for deliberation and discussion about what is an extremely complicated and important topic. Duke Energy repeatedly failed to provide timely information which was essential for the evaluation of its net energy metering proposal, and when information was shared, that information was provided last-minute and therefore was not reasonably susceptible to evaluation. In fact, the handling of the net energy metering issue during the Rate Design Study was always biased in favor of convincing participants to coalesce around the net energy metering model advocated by Duke Energy in South Carolina.

3. Any deliberation over net energy metering must include a full and fair evaluation of the benefits of rooftop solar. To accomplish this, it is essential that the Rate Design Study include an independent value of solar study. Duke Energy has declined multiple requests for such a study. Hence, net energy metering discussions during the Rate Design Study have been one-sided and incomplete.

4. In short, the handling of the net energy metering portion of the Rate Design Study has been flawed.

### **LEGAL BACKGROUND**

5. In the DEC Order and the DEP Order, the Commission ordered Duke Energy to participate in a Rate Design Study concerning certain rate design issues, including net energy metering. DEC Order at 170-73; DEP Order at 179-82.

6. In setting the parameters of the Rate Design Study, the Commission was explicit that any discussion must be thorough in order to achieve the intended results. In the DEC and DEP Orders, the Commission stated that it was “persuaded that **in depth evaluation, debate, and discussion by and among stakeholders** regarding cost to serve, rate design, and making the most efficient use of the electric system is **necessary to achieve results that are in the public interest**, and the Commission directs the Company to ensure that all necessary and appropriate topics are considered to this end.” DEC Order at 171 (emphasis added); see *also* DEP Order at 179 (same). Relatedly, the Commission ordered Duke Energy and “all parties that participate in the Rate Design Study to work cooperatively, productively and efficiently to ensure that resources are efficiently expended on this endeavor and that the outcome aligns with the public interest.” DEC Order at 171; DEP Order at 179.

7. Specifically regarding net energy metering, the Commission stated that any discussion must consider both costs **and** benefits of rooftop solar: “Thus, the Commission anticipates and expects that net energy metering will be considered in the Rate Design Study and that consistent with N.C.G.S. § 62-126.4(b), the Rate Design Study will address the costs and benefits of customer-sited generation.” DEC Order at 171; DEP

Order at 179. Notably, ample time remains for robust discussion of net energy metering rates, as N.C. Gen. Stat. § 62-126.4 does not require revised net energy metering rates for customer-generators until January 2027. See N.C. Gen. Stat. § 62-126.4(c).

8. In order to assist with the facilitation of meaningful deliberation in the Rate Design Study process, the Commission ordered that Duke Energy retain “an independent facilitator.” DEC Order at 172; DEP Order at 181. As noted, Duke Energy Retained ICF as the facilitator.

9. Finally, in the DEC and DEP Orders, the Commission expressed a keen interest in remaining informed about the progress of the Rate Design Study: “In addition, the Commission directs the Company to file quarterly status reports in the instant docket, providing, in detail, the work of the Rate Design Study participants over the previous quarter, including objectives achieved, and anticipated work to be undertaken going forward, including objectives to be achieved.” DEC Order at 172; DEP Order at 182.

**PROBLEMS WITH THE NET ENERGY METERING PORTIONS  
OF THE RATE DESIGN STUDY**

**I. The “Fast Track” Process Left Insufficient Opportunity for Meaningful Discussion.**

10. As the Commission is aware, North Carolina enacted HB 589 in 2017. As part of HB 589, public utilities were required to implement revised net energy metering rates for customer-generators with an effective date in January 2027. N.C. Gen. Stat. § 62-126.4(c). In other words, there is ample time for meaningful deliberation over the terms of revised net energy metering rates.

11. As the Commission is also aware, net energy metering is a hugely complex topic involving numerous controversial issues, including but not limited to minimum

monthly bills, the alleged existence of a cost-shift/cross-subsidization between net metered and non-net metered customers, time-of-use pricing and peak demand periods, overlap with issues related to battery storage, rooftop solar affordability issues, and many other topics. Hence, net energy metering is a topic which justifies using all of the ample lead-time (January 2027) provided by N.C. Gen. Stat. § 62-126.4(c).

12. The Rate Design Study was designed, however, in a manner which prevented meaningful deliberation over net energy metering. Without the consultation of stakeholders, Duke Energy and ICF unexpectedly announced on June 4, 2021 that net energy metering would be placed on a “fast track” process along with time-of-use, electric vehicles and on-tariff financing issues.

13. Pursuant to this “fast track” process, the net energy metering topic would ultimately be the subject of discussion over a mere six (6) weeks, ranging from stakeholder meetings held on July 29, 2021 through September 14, 2021.

14. Various stakeholders repeatedly expressed objections to this “fast track” treatment. For instance, during a teleconference with ICF on July 16, 2021, representatives of NC WARN and Appalachian Voices expressed concerns about placing net energy metering on the “fast track” process. Further, NC WARN and Appalachian Voices repeatedly raised objections about the inadequate amount of time allotted to deliberate and discuss net energy metering issues during every stakeholder meeting during the “fast track” process.

15. In response to these objections, the timeline for deliberations was— inflexibly—not extended in the least. Instead, a small few additional stakeholder sessions were scheduled during the same accelerated time period. This adjustment gives only the

appearance of accommodation, however. Irrespective of the number of meetings held, it was impossible for participants to meaningfully evaluate and discuss complex concepts related to net energy metering over the course of an accelerated six (6) week period.

16. The electric vehicles issue serves as a stark contrast. As noted, in addition to net energy metering, electric vehicles were also added to the “fast track” agenda. However, pursuant to the Commission’s Order entered on November 24, 2020 in Docket Nos. E-2, Sub 1197 and E-7, Sub 1195, regular stakeholder meetings on electric vehicles have been ongoing since December 16, 2020. Despite this thorough stakeholder process, dating back to December 2020, the electric vehicle component of the “fast track” Rate Design Study is still ongoing.

17. The DEC and DEP Orders required “**in depth evaluation, debate, and discussion** by and among stakeholders.” DEC Order at 171 (emphasis added); see *also* DEP Order at 179 (same). Placing net energy metering on a “fast track” process is completely inconsistent with the Commission’s mandate.

**II. The Rate Design Study Was Designed to Promote Adoption of the South Carolina Model.**

18. On or about May 19, 2021, the Public Service Commission of South Carolina approved a Memorandum of Understanding concerning net energy metering between Duke Energy and several prominent participants within the Rate Design Study. See SCPSC Docket No. 2020-264-E/2020-265-E.

19. Unfortunately, the Rate Design Study in North Carolina was always designed to achieve net energy metering rates similar to the stipulation in South Carolina.

20. For example, during the initial Fast Track Working Group Kick-Off meeting held on July 6, 2021, ICF made a presentation which forecasted that the entire net energy

metering discussion would focus upon the South Carolina model and the minor differences which might be expected in North Carolina. A copy of the only slide on net energy metering presented during this Kick-Off meeting is as follows:

**Subgroup B: NEM Designs, NC/SC Differences**

- In-scope:
  - Review of SC Settlement
    - Mandatory TOU-CPP Rate design
    - Netting policy
    - Non-bypassable rider collection
    - DSM/EE incentives
    - Grandfathering policy
    - Non-residential NEM policies
  - NC changes
    - TOU period changes (as discussed in Subgroup A)
    - GAF methodology

21. In other words, during the “fast track” Kick-Off meeting, Duke Energy and ICF indicated that the only matters “In-scope” for net energy metering were the South Carolina settlement, and any tweaks which might be made in North Carolina.

22. By tethering discussions to the South Carolina version of net energy metering, Rate Design Study participants were funneled into a discussion which focused upon the prominent issues within the South Carolina Memorandum of Understanding. For instance, the Rate Design Study implied that a minimum monthly bill was mandatory

and the only issue for debate was the amount, whereas, in fact, there are powerful reasons to doubt that any cost-shift occurs which would justify a minimum monthly bill.

23. By tying the net energy metering agenda to the South Carolina model, the Rate Design Study was biased toward adoption of a model closely resembling South Carolina's.

**III. Duke Energy Failed to Timely Share Important Information Necessary to Meaningfully Participate in Deliberations Over Net Energy Metering.**

24. As noted, net energy metering is a complex topic. No net energy metering policy can be meaningfully debated without a thorough exchange of information and sufficient lead-time to evaluate such information.

25. Unfortunately, the entire net energy metering portion of the Rate Design Study was plagued by a failure to timely share crucial information.

26. For example, agendas and slide-decks were routinely shared at the last minute before meetings. Many of these slide-decks contained substantive information included by Duke Energy in an effort to further consensus in favor of its preferred net energy metering policy. By way of example, the slide-deck used during the meeting on July 22, 2021, which was shared at 3:47 pm on the afternoon before the meeting, contained substantive information designed by Duke Energy to encourage adoption of its preferred time-of-use windows. This late disclosure, among many others, made it impossible to prepare for and participate in meetings related to net energy metering and the related time-of-use meetings.

27. Below is a chronology which shows the failure to timely provide agendas and substantive slide-decks:



<u>Presentation Topic</u>	<u>Presentation Date</u>	<u>Date/Time on Which Agenda and/or Substantive Slide-Deck Was Shared with the Parties</u>
Kick-Off Session	July 9, 2021	July 9, 2021, after the meeting concluded
Subgroup Session A: TOU Rates	July 22, 2021	July 21, 2021 at 3:47 pm
Subgroup Session B: NEM	July 29, 2021	July 28, 2021 at 4:14 pm
Subgroup Session C: NEM	August 5, 2021	August 4, 2021 at 2:48 pm
Session 1: TOU Rates and NEM Discussion	August 12, 2021	August 10, 2021
Subgroup Session D: NEM	August 19, 2021	August 18, 2021 at 5:32 pm
Subgroup Session E: Forecast Data Review (NDA Only)	September 2, 2021	N/a (No slide-deck was shared, but the discussion involved data produced on August 24, 2021)
Subgroup Session F: Final Discussion on Proposed NEM and TOU Filings	September 14, 2021	September 13, 2021 at 5:49 pm

28. As set forth above, agendas and substantive slide-decks were provided with essentially no time for review and preparation for meetings.

29. In addition, NC WARN and Appalachian Voices regularly called upon Duke Energy to produce certain information. These requests for information dated back as

early as the July 22, 2021 meeting, during which NC WARN and Appalachian Voices requested information justifying Duke Energy's proffered time-of-use (TOU) windows.

30. Despite this early call for information, Duke Energy failed to produce any such information until August 24, 2021 and September 7, 2021. These document productions were meaningless for at least three (3) reasons:

- a. The initial document production occurred on August 24, 2021, at which point the net energy metering portion of the Rate Design Study was nearing one-half completed;
- b. Duke Energy unnecessarily required non-disclosure agreements to access the information, which presumably limited participant review of the data; and
- c. Duke Energy provided raw data and general conclusions but without supplying information on underlying assumptions, modeling details, etc.

31. The following events illustrate the failure of Duke Energy to provide meaningful information during the net energy metering portions of the Rate Design Study: The above-mentioned July 22, 2021 stakeholder meeting addressed the TOU rate structure proposed for net energy metering. During this meeting, NC WARN's consultant pointed-out that DEC's September 1, 2020 pilot Critical Peak Pricing TOU tariff includes a 2 pm – 8 pm summer on-peak period. Duke Energy's presenter acknowledged that if the TOU window is based on 2021 data, Duke Energy would apply a 2 pm – 8 pm TOU window. The Duke Energy net energy metering settlement terms in South Carolina include an on- peak TOU window of 6 pm to 9 pm, with an additional morning on-peak window in December – February from 6 am to 9 am. NC WARN noted in the webinar that moving the afternoon TOU window to match a much later modeled peak cost-of-service

window represents a significant economic disadvantage to solar users, who produce substantial power in the afternoon but little in the evening hours.

32. Duke Energy presented graphics in the July 22, 2021 "fast track" webinar showing its modeled cost-of-service by month and hour of the day in 2021 and 2026. These graphics are provided in **Figures 1 and 2** below. The modeling shows the highest cost-of-service in summer moving from 2 pm – 8 pm in 2021 to 6 pm – 9 pm in 2026, five years later. Duke Energy identified the growth in solar generation as the reason for the modeled shift in the July 22, 2021 webinar.<sup>1</sup> The NC WARN consultant noted that California has seen no significant shift over time in its actual summertime peak demand hour despite adding nearly 6,000 MW of NEM solar,<sup>2,3</sup> and over 9,000 MW of utility-scale solar,<sup>4</sup> in the last five years. By comparison, DEC and DEP together forecast they will

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<sup>1</sup> Duke Energy, *Carolinas Refreshed TOU Periods*, PowerPoint, July 22, 2021, p. 9. "Summer peak shifts later in the evening from 2021-2030 due to increases in solar generation on the system."

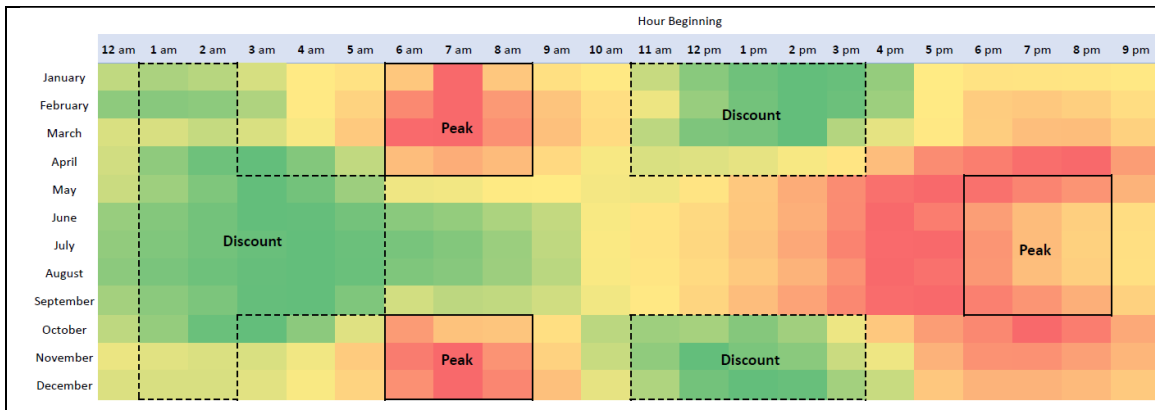
<sup>2</sup> CAISO Peak Load History, 1998-2020: <https://www.caiso.com/documents/californiaisopeakloadhistory.pdf>.

<sup>3</sup> California Distributed Generation Statistics, Statistics and Charts (accessed November 4, 2021): <https://www.californiadgstats.ca.gov/charts/>. NEM solar on December 31, 2015 = 3,287 MW; NEM solar on December 31, 2020 = 9,258 MW; Total NEM solar added in 5-year period 2016-2020 = 5,971 MW.

<sup>4</sup> SEIA, California State Solar Spotlight, September 14, 2021: <https://www.seia.org/sites/default/files/2021-09/California.pdf>.

add 754 MW of NEM solar,<sup>5</sup> and about 2,800 MW of utility-scale solar,<sup>6</sup> between 2021 and 2026. This is less than a quarter of the solar generation capacity added in California in the last five years, where little change in the peak hour occurred over those five years.

**Figure 1. 2021 modeled Duke Energy cost-of-service by month and hour**



**Figure 2. 2026 modeled Duke Energy cost-of-service by month and hour**



<sup>5</sup> DEC 2020 IRP, Table C-10, p. 239 (rooftop solar: 138 MW in 2021, 634 MW in 2026, net increase = 496 MW); DEP 2020 IRP, Table C-10, p. 230 (rooftop solar: 96 MW in 2021, 354 MW in 2026, net increase = 258 MW).

<sup>6</sup> DEC 2020 IRP, Table 5-A, DEC Base with Carbon Policy, p. 42 (net solar increase 2021-2026 = 1,553 MW); DEP 2020 IRP, Table 5-A, DEP Base with Carbon Policy, p. 43 (net solar increase 2021-2026 = 1,240 MW).

NC WARN verbally requested during the July 22, 2021 webinar that Duke Energy share its “TOU shift” modeling inputs that support the later TOU window with the webinar participants, in light of the significant discrepancy between actual (and minimal) peak load shift in a state with a much higher rate of solar adoption than North Carolina. Duke Energy committed verbally during the webinar to do so, but has not produced the requested modeling inputs.

33. For all of these reasons, and others, the Rate Design Study failed to yield productive discussion on net energy metering because of a failure to timely and fully share essential information.

**IV. Any Meaningful Discussion of Net Energy Metering Must Include an Independent Value of Solar Study.**

34. The General Statutes require that net energy metering “rates shall be nondiscriminatory and established only after an investigation of the costs **and benefits** of customer-sited generation.” N.C. Gen. Stat. § 62-126.4(b) (emphasis added). Similarly, this Commission ordered that “the Rate Design Study will address the costs **and benefits** of customer-sited generation.” DEC Order at 171 (emphasis added); see *also* DEP Order at 179 (same).

35. Unfortunately, Duke Energy’s presentations during the Rate Design Study used controversial methods—specifically, the use of the Minimum Systems Method for cost-causation and allocation—to assert the existence of a net cost shift from solar net-metered customers to non-net metered customers. Duke Energy accounted for only the demand and energy savings benefits of rooftop solar, but failed to consider the quantifiable societal benefits of customer-generation.

36. Given this lack of information about the quantifiable benefits of rooftop solar, NC WARN and Appalachian Voices repeatedly called for Duke Energy to participate in an independent value of solar study. However, during the September 14, 2021 meeting, Duke Energy formally declined to participate in such a study. Unfortunately, this important exchange was not included in the most recent Status Report.

37. The need for an independent value of solar study is emphasized by the following. During litigation in South Carolina concerning Dominion Energy South Carolina's net energy metering proposal,<sup>7</sup> several parties who now support Duke Energy's proposed minimum monthly bill sponsored testimony by R. Thomas Beach which stated as follows: "As a result, there is not presently a cost shift from solar customers to non-participating ratepayers . . . . Finally, there are significant, quantifiable societal benefits from distributed solar, including public health benefits from reduced air pollution and from mitigating the damages from carbon emissions." PSCSC, Docket No. 2019-182-E, *Rebuttal Testimony of R. Thomas Beach*, October 29, 2020, at p. 2. This testimony, sponsored by parties now supportive of a minimum monthly bill, underlines the need to fully evaluate the actual benefits of solar via an independent value of solar study.

38. For this Rate Design Study to yield any productive information, an independent value of solar study should be mandatory. Otherwise, the net energy metering portions of the Rate Design Study cannot satisfy the Commission's mandates

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<sup>7</sup> The NEM tariff ordered by the PSC of SC in the Dominion SC NEM solar proceeding in April 2021 is far more favorable than Duke Energy's NEM settlement terms in South Carolina. What is more, the summertime on-peak TOU period in the Dominion SC NEM tariff is 2 pm – 7 pm (Dominion SC TOU-5 tariff), not 6 pm – 9 pm.

that the process be “in depth” and analyze both “costs and benefits.” DEC Order at 171;  
DEP Order at 179.

This the 15th day of November, 2021.

/s/ Matthew D. Quinn

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of the foregoing document upon all counsel of record by email transmission.

This the 15th day of November, 2021.

/s/ Matthew D. Quinn  
Matthew D. Quinn