

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-2, SUB 1159
DOCKET NO. E-2, SUB 1297
DOCKET NO. E-7, SUB 1156
DOCKET NO. E-7, SUB 1268

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of :)
Duke Energy Progress, LLC, and Duke)
Energy Carolinas, LLC, Joint Petition)
of Duke Energy Carolinas, LLC, and)
Duke Energy Progress, LLC, for)
Approval of Competitive Procurement)
of Renewable Energy Program)

In the Matter of:)
Duke Energy Progress, LLC, and Duke)
Energy Carolinas, LLC,)
2022 Solar Procurement Pursuant to)
Session Law 2021-165, Section 2(c))

COMMENTS OF CLEAN POWER
SUPPLIERS ASSOCIATION AND
CAROLINAS CLEAN ENERGY
BUSINESS ASSOCIATION

\Pursuant to the *Order Requesting Comments* issued by the North Carolina Utilities Commission (Commission) on September 23, 2022, intervenors Clean Power Suppliers Association (“CPSA”) and the Carolinas Clean Energy Business Association (“CCEBA”) (collectively, “Intervenors”) respectfully submit these Comments on the solar resource procurement target for the 2022 solar procurement program pursuant Session Law 2021-165, § 2.(c) (2022 Solar Procurement), and on the request by Duke Energy Carolinas, LLC (“DEC”) and Duke Energy Progress, Inc. (“DEP”) (collectively, “Duke”) to procure the Competitive Procurement of Renewable Energy (“CPRE”) Program capacity shortfall through the 2022 Solar Procurement (“2022 SP”), to extend the CPRE Program PPA term, and for waiver of certain provisions of Commission Rule R8-71 (“CPRE Proposal”).

As discussed further below, Intervenor propose a 2022 SP procurement target of 1647 megawatts (“MW”), of which 441 MW would go to satisfy Duke’s outstanding CPRE obligation. Intervenor further support Duke’s CPRE Proposal, subject to certain conditions designed to ensure that the CPRE procurement does not interfere with or undermine the procurement of solar projects under H.B. 951, and to help ensure that Duke is able to procure sufficient projects under avoided cost to satisfy its outstanding obligation under H.B. 589.

I. 2022 Procurement Target Volume

Intervenor propose a 2022 SP procurement target of 1647 MW, which would include 1500 MW of procurement necessary to support modeled Carbon Plan portfolios, and one-third (147 MW) of the 441 MW capacity shortfall resulting from Duke’s under-procurement in CPRE.¹ (The remaining 293 MW would be added to subsequent procurement volumes set based on Carbon Plan modeling.)²

a. Procurement based on Carbon Plan portfolios

As discussed in CPSA’s July 15, 2022, Comments on the proposed Carbon Plan³ and in the direct testimony of CPSA Witness Tyler Norris,⁴ a 2022 SP target of at least 1500 MW is necessary and appropriate if Duke is to have any hope of complying with the 70% carbon reduction mandate of H.B. 951 by 2030. A 1500 MW procurement target not only is supported by CPSA’s modeled portfolios for 2030 and 2032 compliance at least cost (CPSA2-5), but also is consistent

¹ As discussed further below, CPSA conditionally supports Duke’s proposal to satisfy its outstanding legal obligation under H.B. 589 entirely with projects procured in the 2022 SP.

² As discussed in Section II below, 440 MW of the 1647 MW procurement should be made up of third-party CPRE PPAs at or below avoided cost, with the remaining 1207 MW subject to the 55/45% ownership split required by H.B. 951.

³ Comments of Clean Power Suppliers Association (“CPSA Comments”) at 50-54.

⁴ Prefiled Direct Testimony of Tyler H. Norris at 13, 34.

with and supportive of Duke's P1 portfolio – the only Duke portfolio to support compliance in 2030.⁵

Duke acknowledges that solar is the least cost carbon-free generating resource now available in the Carolinas, and every portfolio presented by Duke (or any other party) includes large volumes of solar procurement over the near and medium term. Duke's sole argument against ambitious near-term procurement targets is that it is unlikely to be able to interconnect large volumes of solar in the near term.

Although Intervenors believe that Duke has failed to justify its interconnection constraints, Intervenors acknowledge that there is significant uncertainty about how much additional generation Duke will be able to interconnect annually in the coming years.⁶ However, Duke acknowledges that solar capacity procured in the 2022 SP will not all be interconnected in 2026.⁷ Regardless of interconnection constraints, it is almost certain (because of the schedule for constructing transmission upgrades) that some will be interconnected in 2027 and 2028. It is also likely that some may be interconnected before 2026.⁸ Consequently there is no reasonable basis for fixing the 2022 SP target volume to Duke's modeled solar additions in 2026.

In any event, given the uncertainty about Duke's ability to interconnect, Intervenors believe that it is more prudent—and more consistent with Duke's aggressive, "all of the above" approach to H.B. 951 compliance—to set an ambitious *goal* for solar procurement, rather than assuming an arbitrary cap on how much solar Duke will even try to procure.

⁵ Norris Testimony at 34-43.

⁶ Duke's interconnection constraint is discussed at length in CPSA's comments (CPSA Comments at 9-22) and in the testimony of CPSA Witnesses Norris and Watts. CPSA will address this issue at greater length in its post-hearing submittals.

⁷ Duke bases its proposed 2022 procurement target volume on the capacity of solar it forecasts that it will be able to interconnect in 2026.

⁸ Direct Testimony of Snider, McMurry, Quinto, and Kalembe at 78:6-10.

Furthermore, as discussed in Witness Norris's testimony, a more ambitious 2022 SP target has several advantages, including (1) decreasing solar execution risk; (2) mitigating the risk of network upgrade delays and rising costs; (3) better enabling the assessment of interconnection limits; (4) reducing the need to rely on higher cost alternative resources with greater execution risk; (5) mitigating the risk of higher electricity load; and (6) accounting for the project attrition that is to be expected in any significant procurement.⁹ A more limited procurement, by contrast, will not test Duke's interconnection limits, will increase the risk that Duke will be unable to comply with the 70% mandate by 2030, and will up the odds that more expensive and more uncertain resources will be needed to for Carbon Plan compliance.

b. Addition of CPRE shortfall MW

The 441 MW CPRE shortfall creates two problems: first, Duke has an outstanding legal obligation to procure (or attempt to procure) 441 MW of additional CPRE PPAs at or below avoided cost. (That obligation is discussed in Section II below.) Second, because Duke's Carbon Plan modeling and original proposed procurement targets assumed that Duke had fully satisfied its CPRE procurement obligation, the CPRE shortfall leaves a 441 MW deficit in solar capacity that must be made up with additional procurement. However, there is no reason that these two problems need to be solved at the same time. Intervenors propose that the 441 MW capacity deficit be made up by adding one-third of that capacity (i.e., 147 MW) to the Duke's annual procurement targets in 2022, 2023 and 2024. This brings the 2022 SP target to 1647 MW. As discussed below, Intervenors agree that that it is appropriate for Duke to satisfy its remaining legal obligation under H.B. 589 by attempting to procure 441 MW of third-party CPRE PPAs in the 2022 SP.¹⁰ The

⁹ Norris Testimony at 37-43.

¹⁰ For the avoidance of doubt: Intervenors propose to allocate the 440 MW of needed solar capacity resulting from the CPRE shortfall equally among the 2022, 2023, and 2024 procurements. Added to the procurement volumes proposed in CPSA's comments (1500 MW, 1500 MW, and 1800 MW in 2022, 2023, and 2024), this would result in

additional 147 MW of solar procurement required in the 2023 and 2024 procurements would not be CPRE PPAs, but would be subject to the 55%/45% ownership split required by H.B. 951.

II. CPRE Proposal

Intervenors generally support the concept of fulfilling Duke's remaining CPRE obligation via projects procured in the 2022 SP. However, the Commission should not approve Duke's proposal if it will interfere with or disrupt the authorized procurement of solar projects under H.B. 951, or if it is unlikely to result in the successful procurement of solar projects priced under avoided cost.¹¹ Subject to the conditions proposed below, Intervenors believe that 441 MW of the total target volume for the 2022 SP should be made up of third-party CPRE PPAs, which must (inclusive of upgrade costs) be below Duke's 25-year avoided cost rate.

There are several points on which Intervenors agree with Duke. Intervenors agree that Duke is obligated by H.B. 589 to attempt an additional procurement of CPRE capacity, but that conducting a separate procurement solely for purposes of meeting Duke's remaining CPRE obligation would be inefficient and unwieldy. Given the robust market response to the 2022 SP, Intervenors agree that (if certain conditions are imposed, as discussed below) there is a good chance that Duke will be able to meet its outstanding obligation to procure CPRE PPAs at or below avoided cost. Intervenors further agree that this necessitates certain modifications to the CPRE framework, including using 25-year PPAs and avoided cost rates; and (because Duke is not bidding in) employing an Independent Evaluator instead of an Independent Administrator.

procurement targets of 1647 MW, 1647 MW, and 1947 MW in 2022, 2023, and 2024, respectively. However, rather than attempt to identify and procure 147 MW of CPRE-eligible PPA projects in each of those procurements, Intervenors propose that Duke allocate 440 MW of the 2022 SP to CPRE PPAs, thereby satisfying its outstanding legal obligation in the first year of procurement.

¹¹ If Duke is unable to satisfy its obligation to procure 440 MW of CPRE PPAs in the 2022 SP, the shortfall may need to be added to procurement targets in 2023 or 2024 to make up the gap (although Intervenors do not suggest that capacity would need to be procured as CPRE PPAs).

However, the Commission should modify or condition Duke’s CPRE proposal to maximize the chances that highly competitive bids will not be prematurely eliminated from consideration, or disqualified by the avoided cost cap due to Upgrade costs that should not be fully allocated to those bids for purposes of bid evaluation. The CPRE Proposal must also be conditioned to ensure that will not interfere with or disrupt the authorized procurement of solar projects under H.B. 951.

a. Transparency as to avoided cost rates and bid evaluation is necessary.

It is impossible to assess the CPRE Proposal’s chances of success without any visibility into either the avoided cost rates Duke proposes to use as a cap to assess the cost-effectiveness of bids (as required by G.S. 62-110.8(b)(2)), or without understanding how Duke plans to compare 2022 SP bids—which were submitted as a single, levelized per-kWh rate over the duration of the PPA—to its approved avoided cost rates, which incorporate multiple pricing periods.¹²

As noted by Duke in the Petition, 2022 SP bidders will have the opportunity to refresh their bids in April 2023. Duke should be required to file its proposed 25-year avoided cost rates, as well as its proposed methodology for comparing levelized PPA bids to avoided cost rates with multiple pricing periods, as far in advance of the bid refresh as possible.

b. Short-listing should not eliminate potentially viable bids

As stated, the 2022 SP provides bidders the opportunity to refresh their pricing in April 2023. Due in part to tax changes enacted in the Inflation Reduction Act (“IRA”), the April 2023 bid refresh is likely to result in improved pricing for 2022 SP bids. Not all projects are eligible for all tax benefits under the IRA, though, and not all bids will improve by the same amount. Consequently there may be changes in the rank order of bids after the April refresh. However, under the current RFP structure Duke will complete Step 1 project rankings in November 2022

¹² In CPRE Tranches 1-3, market participants were required to structure their PPA bids as a decrement to the published avoided cost rates in all pricing periods.

and will invite projects to advance to Step 2 in December. Intervenors are concerned that many bids that would be competitive with IRA-adjusted pricing will be eliminated prior to Step 2, because those bidders will not have had the opportunity to refresh their bids by then. The premature elimination of such competitive bids is likely to reduce the pool of potential projects that are below avoided cost (after the bid refresh), and as a result will reduce the likelihood that Duke will be able to fulfill its CPRE obligation.

It may not be possible to prevent any competitive projects from being prematurely eliminated because the DISIS phase 2 timelines (which are, in part, FERC-jurisdictional) cannot be adjusted. However, Duke can mitigate this problem by creating a very large “reserve list” of projects that are advanced to Step 2, which may be moved onto the short list after the April 2023 bid refresh. If Duke objects to this solution, the Commission should direct Duke to engage with Intervenors and other stakeholders immediately on other measures that could be taken to prevent potentially competitive bids from being eliminated from consideration before step 2 of the RFP commences.¹³

c. Selection of CPRE projects must not skew the Volume Adjustment Mechanism.

The Target Procurement Volume for the 2022 SP is subject to limited adjustment (up or down) depending on how actual bid prices compare to the assumed prices of solar resources in the Carbon Plan (“Solar Reference Cost”). The RFP provides that before selecting the portfolio of winning proposals, Duke will calculate the weighted average cost of the total portfolio of Utility Ownership Track and PPA Track resources along with their assigned System Upgrade costs. If the weighted average cost is greater than or equal to 110% of the Solar Reference Cost, the target

¹³ The DISIS Phase 2 customer engagement window closes on December 26, 2022. Any solution to mitigate this problem must be established far enough in advance of that date for competitive projects to post security for DISIS Phase 2.

volume may be decreased by as much as twenty percent (20%).¹⁴ The purpose of this Volume Adjustment Mechanism (“VAM”) is to promote greater value for ratepayers, by either reducing the overall size of the procurement if bid prices are higher than expected, or increasing the volume if prices are lower.

As the Public Staff observed in the direct testimony of Witness Thomas, excluding CPRE projects (which represent the most competitive bids in the 2022 SP) from the volume adjustment mechanism would increase the weighted average bid price of the remaining 2022 Solar Procurement projects, which could decrease the total amount of solar capacity procured pursuant to the Carbon Plan if the volume adjustment mechanism is triggered, without actually affecting the cost of solar procured through the 2022 Solar Procurement.¹⁵ Such an outcome would not benefit ratepayers and would be inconsistent with the purposes of the VAM. Accordingly, the Commission should direct Duke to include any CPRE projects procured in the 2022 SP in its calculation of the VAM (although the amount of CPRE procurement would not be subject to adjustment pursuant to the VAM).

d. The Red Zone Transmission Expansion Projects, if approved, should not skew CPRE results, 2022 SP bid evaluation, or the VAM.

A final issue that could undermine the success of the CPRE Proposal and the 2022 SP as a whole is the allocation of costs for Duke’s proposed Red Zone Transmission Expansion projects (“RZEP”) for purposes of bid evaluation, assessing compliance with the avoided cost cap, and calculation of the VAM. In testimony and at the hearing, Duke has stated that its intention is to submit the RZEP (or some subset thereof) for approval by the North Carolina Transmission Planning Collaborative (“NCTPC”) in late 2022. If approved, the RZEP will be incorporated in

¹⁴ RFP p. 2.

¹⁵ Direct Testimony of Jeff Thomas at 67-68.

Duke's 2022 Local Transmission Plan. Duke has further stated that if that happens, the RZEP will be deemed "Contingent Facilities," the costs of which will not be assigned to interconnection customers in their Interconnection Agreements, consistent with DISIS procedures.

As discussed in testimony and at the expert witness hearing, the DISIS Phase 2 results are likely to allocate the entire cost of the RZEP to projects in the 2022 SP, despite the fact that these upgrades to Duke's transmission system will facilitate the interconnection of at least 3.6 GW of solar generation in the "red zones." Depending on the number of projects procured in the 2022 SP (and therefore the number of projects that remain in DISIS through the end of Phase 2), this could result in a large amount of upgrade costs being allocated to 2022 SP projects in the Phase 2 of the DISIS study process.¹⁶ But if this Commission recognizes the need for the RZEP and they are approved by the NCTPC, Duke will construct those upgrades whether or not any particular projects are identified in the DISIS study as triggering the need for them. Moreover, if the RZEP are identified as Contingent Facilities, the Interconnection Agreement for those projects would not assign any Upgrade costs for the RZEP to those projects.

As discussed in the written comments of CPSA and in Duke's direct and rebuttal testimony,¹⁷ the most economically competitive solar projects (and therefore the ones most likely to be under avoided cost based on bid pricing) are likely to be located in the Red Zone. If the full costs of the RZEP are allocated to 2022 SP projects in the DISIS Phase 2 process, and those assigned Upgrade costs are used by Duke to assess compliance with the CPRE Avoided Cost Cap, then potentially competitive projects may be disqualified (as over avoided cost) even though (a) the RZEP would be constructed even if those projects were never interconnected; and (b) they

¹⁶ However the costs of the RZEP are allocated in the DISIS study process, if Duke designates these upgrades as Contingent Facilities, the costs will ultimately not be assigned to those projects in their Interconnection Agreements.

¹⁷ CPSA Comments at 54-64; Direct Testimony of Roberts and Farver at 22-39; Rebuttal Testimony of Roberts and Farver at 3-16.

will not actually be allocated the cost of the RZEP upgrades in their Interconnection Agreements. Eliminating a significant proportion of the most competitive projects from consideration based on these costs will make it much more difficult for Duke to meet its CPRE procurement obligation in the 2022 SP. This would have the perverse result of selecting more expensive projects in the 2022 SP, simply because those projects will not rely on construction of the RZEP.¹⁸

To avoid this outcome, Intervenors propose that if this Commission recognizes the need for the RZEP (or some subset thereof) to achieve the goals of H.B. 951, and those upgrades are approved by the NCTPC, then the allocated cost of the RZEP should not be included when evaluating whether potential CPRE projects exceed the avoided cost cap.¹⁹ For similar reasons, Intervenors believe that the cost of RZEP upgrades also should not be factored into the ranking and evaluation of non-CPRE projects in the 2022 SP, and should not be considered in Duke's calculation of bid cost for purposes of the VAM. If the Commission concludes that it would be inappropriate not to assign any cost for the RZEP for purposes of bid evaluation or assessing compliance with the avoided cost cap, then the allocation of costs for the RZEP in DISIS Phase 1 (where the costs of the RZEP will be spread among the approximately 3.5 GW of red zone projects in DISIS) would be a reasonable proxy value, because it would roughly approximate the allocation of RZEP costs to those projects if the full number of projects that would be facilitated by the RZEP is considered. To the extent the Commission decides that some costs for the RZEP should be allocated to 2022 SP projects for purposes of bid evaluation, VAM calculation, or avoided cost

¹⁸ Intervenors do not dispute that there may be other non-economic reasons to select certain projects that do not require the RZEP. For example, it may be the case that non-Red Zone projects (that also do not require other significant transmission upgrades) may be able to interconnect before 2026. Selecting relatively competitive projects with "clean" interconnections could ease the burden on Duke's interconnection personnel and increase the overall number of projects that can be interconnected.

¹⁹ To be clear, the cost of any Upgrades that are not approved by the NCTPC should be considered in evaluating compliance with the avoided cost cap.

cap compliance, the DISIS Phase 1 cost allocation would be a more realistic and reasonable figure to use.

Intervenors acknowledge that, in its June 9, 2022 Order in this docket, the Commission directed Duke not to include the RZEP in the baseline for the 2022 DISIS study, and to “evaluate bids in a manner that takes into account all costs for the proposed facilities, including Network Upgrades.” However, that Order was issued before Duke announced its intention to procure the remaining CPRE MW in the 2022 SP, and does not speak to how Duke should evaluate projects for CPRE purposes. Furthermore, the June 9 Order was premised on the fact that no party had, at that time, “presented competent evidence that the RZEP projects are necessary to achieve the Carbon Plan.” Since then Duke and other parties (including Intervenors) have presented a significant amount of evidence that the RZEP projects are indeed necessary to achieve the requirements of H.B. 951. Although the Public Staff has questioned the need for a handful of the proposed RZEP, and the Commission has yet to decide the issue, and no party has presented evidence that the RZEP are, as a whole, not necessary or appropriate. Moreover, Intervenors are only requesting that RZEP costs not be included in bid evaluation if the Commission recognizes the need for the RZEP, and they are approved by the NCTPC. To the extent that any bidders in the 2022 RFP relied on the Commission’s June 9 Order in pricing their bids, they will have the opportunity to adjust those bids in the April 2023 price refresh.

In sum, Intervenors believe that including the full cost of the RZEP in CPRE avoided cost evaluations and 2022 SP bid evaluations would severely undermine both the CPRE Proposal and the 2022 SP, without any benefit to ratepayers. The Commission should approve Duke’s CPRE Proposal only subject to these conditions.

III. Conclusion

Because it is reasonable and necessary for Duke to have any chance of meeting the 70% carbon reduction mandate of H.B. 951 by 2030, the Commission should establish a target procurement volume of 1647 MW for the 2022 SP. Intervenors further support Duke's proposal to satisfy its legal obligation to procure 441 MW of additional CPRE PPAs in the 2022 SP, if the Commission imposes conditions reasonably designed to ensure the success of the program, and to prevent the CPRE procurement from interfering with the procurement of projects under H.B. 951.

Respectfully submitted, this the 4th day of October, 2022.

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CERTIFICATE OF SERVICE

I hereby certify that the foregoing jointly filed Comments of Clean Power Suppliers Association and Carolinas Clean Energy Business Association have been served upon parties and counsel of record in NC Utilities Commission Docket Nos. E-2, Sub 1159, E-2, Sub 1297, E-7, Sub 1156, and E-7, Sub 1268 and on NC Public Staff by electronic mail, or by depositing same in the United States mail, postage prepaid.

This the 4th day of October, 2022.

/s/ Benjamin L. Snowden
Benjamin L. Snowden