

**BEFORE THE NORTH CAROLINA UTILITIES COMMISSION
DOCKET Nos. E-2, SUB 1159; E-7, SUB 1156**

In the Matter of:)	
Duke Energy Progress, LLC and Duke)	JOINT CCEBA AND NCSEA
Energy Carolinas, LLC, Joint Petition)	COMMENTS IN RESPONSE TO
for Approval of Competitive)	MOTION TO DISCONTINUE
Procurement of Renewable Energy)	CPRE PROGRAM
Program)	

“The only thing more painful than learning from experience is not learning from experience.”

This statement, attributed to American poet Archibald McLeish, is particularly apt to the matter now pending and to a series of decisions this Commission will be called upon to make in the coming years. Now is the time to learn from the experience of the Competitive Procurement of Renewable Energy (“CPRE”) programs undertaken to date. To that end, intervenors the Carolinas Clean Energy Business Association (“CCEBA”) and the North Carolina Sustainable Energy Association (“NCSEA”) (together “Intervenors”), file these comments pursuant to the Commission’s September 19, 2023, Order Setting Time for Intervention and Filing Comments and its October 9, 2023, Order Granting Extension of Time to File Comments and Reply Comments.

DISCUSSION

In their Motion to Conclude CPRE Program and Discontinue Program Planning and Reporting Requirements, Duke Energy Carolinas, LLC (“DEC”), and Duke Energy Progress, LLC (“DEP”) (collectively, “Duke Energy”), move to end the CPRE program under the framework of N.C. Gen. Stat. § 62-110.8, as enacted by North Carolina Session Law 2017-192. NCUC Rule R8-71(g)(4) states: “in any year in which an electric public

utility determines that it has fully complied with the CPRE Program requirements set forth in G.S. 62-110.8(a), the electric public utility shall notify the Commission in its CPRE Program Plan, and may petition the Commission to discontinue the CPRE Program Plan filing requirements beginning in the subsequent calendar year.” In its latest filing, Duke Energy states that it has achieved full compliance, and therefore moves to discontinue the program, in light of the new procurement processes adopted under House Bill 951.

Intervenors do not object to the termination of the CPRE programs as requested by Duke Energy or to the Final Report filed by the companies. However, Intervenors urge the Commission to consider the lessons learned from the CPRE experience regarding the design and implementation of energy resource procurements, and how to improve them.

A. The CPRE Program Experienced Declining Participation and Significant Attrition

The Final CPRE Program Plan filed by Duke Energy on September 1, 2023 (“Final Program Plan”) reveals that the CPRE program was only partially successful in meeting its announced goals. Based on the information in the Final Program Plan, there are two primary factors that contributed to this: declining participation and high project attrition.

Although CPRE program targets remained relatively stable, participation in the CPRE program declined with each tranche. In Tranche 1, conducted in 2019, DEC Requested 600 MW and received 58 proposals totaling 2,733 MW, spread across both North and South Carolina. Of those, DEC contracted with 10 projects, totaling 435 MW (there were also five DEC-owned or related projects selected, totaling an additional

189MW). DEP sought 80MW and received 20 proposals totaling 1,231MW, out of which two were contracted, totaling 87MW. Final Program Plan at 4-5.

In Tranche 2, conducted in 2020, DEC sought 600MW, and received 37 proposals totaling 1,710.4MW, from which 10 were contracted for a total of 589MW. Also in Tranche 2, DEP sought 80MW and received 6 proposals totaling 440MW. One 75MW proposal was selected. *Id.* at 5.

In Tranche 3, conducted in 2022, DEC sought 596MW and received 8 proposals totaling 520MW. Two proposals, totaling approximately 155MW were chosen and executed PPAs. *Id.* at 6. Tranche 4, which concluded on June 19, 2023, sought 441MW total in both DEC and DEP. Four projects totaling 286MW were selected, with two in each territory. *Id.*

All told, these CPRE tranches resulted in a total of 1,626MW of solar projects being selected and offered PPAs, against a total identified need of 2,397 MW – a success rate (in terms of PPAs offered) of about 68%. The most likely contributor to declining participation was probably the significant drop in the avoided cost cap from Tranche 1 to Tranche 4. For later tranches, this coincided with significant disruptions in the market that may have influenced bidder behavior. However, this decline in participation may also have resulted from developers' increasing awareness of the significant risks of executing CPRE PPAs, or even in proceeding past the first phase of the evaluation process.

More troubling is the high level of attrition that occurred among projects that were offered a PPA and did not execute it (thus forfeiting their proposal security), and that signed a PPA and later terminated it, incurring very significant liquidated damages.

Of the ten projects by Independent Power Producers (“IPP”) selected in DEC for Tranche 1, three totaling 145MW terminated their PPAs. *Id.* at 5. In Tranche 2, of the 10 projects selected in DEC, five totaling 310MW have terminated their PPAs. *Id.* In Tranche 4, the two projects selected by DEP, which total 155MW, have not executed offered PPAs. *Id.* Thus, 610MW of the 1,626MW in selected projects have terminated or never signed their PPAs. As a result, as of the filing of the Final Program Plan, only 1,016 MW of IPP projects have moved forward, against a stated need of 2,397 MW between 2019 and 2023.

The following table summarizes the results of the CPRE program, based on the Final Program Plan:

Tranche	Utility	Target	Proposed	Contracted	Terminated	Delivered	In process	% target (best case)	% target (worst case)
1	DEC	600	2733	435	145	270	50	53%	45%
	DEP	80	1231	87	0	87	0	109%	109%
	Total	680	3964	522	145	357	50	60%	53%
2	DEC	600	1710	589	310	124	0	21%	21%
	DEP	80	441	75	0	0	75	94%	0%
	Total	680	2151	664	310	124	75	29%	18%
3	DEC	596	520	155	0	0	155	26%	0%
	DEP	--	--	--	--	--	--	--	
	Total	596	520	155	0	0	155	26%	0%
4	Combined	441		286	0	0	286	65%	0%
	Program Total	4353	13270	2968	910	962	846	42%	22%

Based on these numbers, 910 MW of projects that were awarded CPRE PPAs have terminated those PPAs, despite the fact that doing so resulted in millions of dollars in liquidated damages. Another 846 MW of projects have been awarded PPAs but have not been constructed, and it is likely that some number of those projects may terminate their PPAs as well. Depending on how many of those projects are ultimately constructed,

the “success rate” of the CPRE program (in terms of reaching the target MW for each Tranche¹) has been between 22% and 42%.

If attrition continues at the level seen in the CPRE tranches into future procurements, North Carolina risks noncompliance with the mandates of House Bill 951. Although Duke Energy did not disclose reasons for the withdrawals from executed PPAs, because the withdrawal penalty provisions of those PPAs impose substantial costs on withdrawing IPPs, it must be assumed that costs or circumstances made compliance impossible, or that withdrawal – even with the penalties – became the least economically damaging alternative for the project.

CCEBA members have identified several factors outside of bidders’ control that have contributed to project attrition: (1) Interest Rate increases after the execution of the PPA, greater than what could have been forecasted which greatly affect project financing; (2) construction and equipment cost increases of 20-30 percent between January 2022 and September 2023, caused by increasing labor costs and supply chain constraints; (3) operations and maintenance cost increases, driven by labor cost increases; and (4) increasing curtailment by Duke Energy throughout its territory causing awardees to assume greater, curtailment on future projects.

Individually, any one of these increases might have been within the ability of an IPP to make up through assumed efficiencies and contingencies. However, the occurrence of all of them at once made previously financeable and achievable projects simply untenable. Each of these factors imposes risk on IPPs, but each is essentially

¹ Because the targets for each tranche were set independently, the success rate on a per-tranche basis is different than the program’s overall success in meeting the total MW target required by H.B. 589.

beyond their control, and the combination of these factors over the last few years of the CPRE program was unforeseeable. While it is possible that developers will be able to more accurately predict similar cost/risk increases in coming years, that is by no means certain due to the significant time gap between bid submittal and construction, financing, and operation of a facility. This delay – which is due to a number of factors also not in the developer’s control – can span several years, and leaves solar projects exposed to unforeseen but extremely significant project execution cost changes such as those experienced over the last three years.

Moreover, although some developers may make more conservative assumptions about such risks, a competitive procurement will by its very nature tend to select the bids that reflect the most aggressive assumptions about project risk. The magnitude of these risks (which recently have resulted in project price increases on the order of 30-40%) is such that these assumptions, rather than other competitive differences between projects and developers, may be the driving factor in bid pricing.

There is no reason to believe that the market disruptions of the last few years – cost increases, supply chain disruptions, trade issues, inflation, interest rate hikes, and labor cost increases, to name a few – will go away any time soon. Without any mechanism to adjust bids to reflect structural changes beyond the developer’s control, the existing PPA structure, which allocates *all* of the risk of such increases on the developer, could yield further withdrawals and attrition going forward. A PPA structure that more fairly allocates risk between Duke Energy and the IPP, while ensuring ratepayer protection, would increase participation and decrease attrition, thereby helping achieve the carbon reduction goals on time and on target.

It is important to note that these factors do not have the same impact on Duke Energy's ability to develop (and get cost recovery for) company-owned generation projects, which under H.B. 951 will comprise all new generation except for 45% of new solar and solar+storage resources. Where project costs increase due to factors beyond Duke Energy's control, Duke Energy can reasonably expect to recover the full project cost from ratepayers and can therefore proceed with project development in the face of uncontrollable cost increases. Third-party developers are forced to accept significant economic risks not faced by Duke Energy in the development of its own projects. Moreover, Duke realizes full cost recovery on its own projects regardless of how much it chooses to curtail or dispatch them.

The attrition resulting from this disparate treatment of IPPs is not only a problem for developers, who only make money by putting projects in the ground, it is also a problem for ratepayers. It disrupts North Carolina's effort to bring large volumes of solar and solar+storage on the electric system in an orderly and cost-effective manner, as required by law. This is true even if the projects subject to attrition (i.e., unable to fulfill contractual obligations that require production of energy at \$x per megawatt) would – even at a higher cost $\$x + 20\%$ -- *still* be lowest cost resources that should be added to the system. Said another way, uncontrollable risks imposed on IPPs and not faced by Duke Energy result in reduced participation and the withdrawal of least-cost resources and zero emission megawatts needed for the statutorily-required transition away from coal-fired power plants.

B. CCEBA Has Previously Proposed a Method of Addressing Unexpected Costs

In prior filings, particularly in the 2023 Procurement Dockets (E-2, Sub 1317 and E-7, Sub 1290), CCEBA proposed, and NCSEA supported, a market price adjustment mechanism to address these cost increases. CCEBA suggested that the 2023 Procurement include a contract price-adjustment mechanism that would enable bidders to react to changing supply-side market conditions, such as significant changes in interest rates or panel pricing. CCEBA proposed a PPA price adjustment linked to clear market indices. In its July 11, 2023 Comments in the 2023 Procurement Dockets, CCEBA noted that such a mechanism could also allow ratepayers to capture the benefits of *downward* changes in project construction costs, mitigating the risk that solar procured today is significantly more expensive than solar that could be procured at a later date:

Such a mechanism could also help solve another problem: Duke and the Public Staff have indicated a reluctance to procure solar more ambitiously because market pricing may come down over time. A PPA price adjuster linked to a market index could also be used to lower PPA pricing if the cost of key components comes down between the time the PPA is executed and when the project is built.

CCEBA 2023 Procurement Comments at 6.

In stakeholder meetings related to the 2023 RFP, Duke expressed a willingness to discuss alternative contracting structures to mitigate risk, but took the position (which Intervenors did not dispute) that there was insufficient time to implement any such proposal for the 2023 RFP. Intervenors intend to engage Duke and the Public Staff on further discussion of this topic in the immediate future.

In its July 26, 2023 Order Accepting Proposed 2023 Solar Resource Procurement Request for Proposals Documents in dockets E-2, Sub 1317 and E-7, Sub 1290 (“2023 RFP Order”), the Commission noted that CCEBA had highlighted a “request for a

contract price adjustment mechanism, also referred to by CCEBA as a market price adjustment mechanism to ‘address the risk of significant price changes between bid and construction.’” 2023 RFP Order, at 9. The Commission acknowledged CCEBA’s argument that because solar projects have a long timeline between execution of a PPA and construction, they are vulnerable to price changes in the interim, and that such uncertainty can lead to project attrition, which CCEBA argued “seriously undermines Duke’s resource planning and carbon reduction objectives.” *Id.* While the Commission approved Duke Energy’s proposed RFP documents without such an adjustment mechanism, it took the concerns “under advisement” and directed CRA to include “assessments and any applicable lessons-learned responsive to [CCEBA’s] comments.” *Id.* at 11-12.

In addition, CCEBA and its members have previously proposed a tolling structure for solar PPAs under which payments to IPPs would not be adversely affected by Duke’s curtailment decisions – just as Duke’s own cost recovery is not affected by such decisions.

Intervenors appreciate this opportunity to update the Commission on the challenges faced by the CPRE program and the opportunities for improvement in future competitive procurements. We will work with Duke Energy and other stakeholders as part of the Carbon Plan process and the 2024 Procurement process to evaluate the reasons behind low participation and project attrition and to develop a PPA structure that more fairly balances the risk of cost increases or decreases and curtailment. The results of the CPRE program provide a clear “lesson-learned” that without structural changes, low participation and project attrition may endanger compliance with the carbon reduction

mandates of House Bill 951. Some form of market price adjustment mechanism, as the Commission noted in its Order, should receive thorough consideration, as well as a re-evaluation of the current approach to uncompensated curtailment. Such steps are needed to increase IPP participation in competitive procurements, minimize attrition, maximize cost savings for ratepayers, and ensure that the state achieves its carbon reduction mandate in an orderly and efficient manner.

Respectfully submitted, this 18th day of October 2023.

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I hereby certify that all persons on the docket service list have been served true and accurate copies of the foregoing document 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 18th day of October 2023.

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