STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-100, SUB 179

In the Matter of Duke Energy Progress, LLC, and Duke Energy Carolinas, LLC, 2022 Biennial Integrated Resource Plans and Carbon Plan	))))	CUCA'S POST-HEARING BRIEF

Carolina Utility Customers Association, Inc. ("CUCA"), through counsel, hereby respectfully submits this Post-Hearing Brief regarding the Carbon Plan filed by Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP") (together, "the Companies" or "Duke").

INTRODUCTION

The 2022 Carbon Plan proceeding is the first step in Duke Energy's journey to statutorily-mandated carbon-neutral generation in North Carolina. CUCA reiterates[1] its request that the Commission start the voyage cautiously in view of the consequences at issue, particularly as regards costs and reliability.

This proceeding involves portfolios produced by the Companies that all reach essentially the same conclusion: the transition to a carbon-free grid is going to cost North Carolina ratepayers $100,000,000,000. Remarkably, no examination has been made of potential negative consequences on economic growth, investment, and jobs flowing from this level of investment and the ensuing impacts on consumer rates. The stakes in this

[1] CUCA's Comments Regarding Carbon Plan, Docket No. E-100, Sub 179 (July 15, 2022).

proceeding are too high to do anything short of applying the utmost scrutiny to ensure that the Commission's Carbon Plan truly is the least-cost pathway.

While the portfolios put forward by Duke and intervenors extend far into the future, there does seem to be a general consensus that this proceeding should be focused on the near-term actions that are needed to put the State on the pathway to achieving HB 951's carbon reduction goals. Therefore, while CUCA has concerns about the long-term costs of the Carbon Plan, this brief addresses aspects of Duke's proposed near-term action plan that are particularly concerning.

First, the Commission must retain its longstanding fidelity to least-cost resource planning. Not only is this required by the plain language of HB 951, but the magnitude of Duke's anticipated generation and transmission investments calls for renewed commitment to least-cost decisions.

Second, the Commission should make clear that Duke's requests for approval of development activities does not constitute "pre-approval" of recovery of costs for ratemaking purposes or a presumption of need for purposes of issuance of any required CPCN.

Third, the Carbon Plan and other Duke initiatives are going to have enormous impacts on ratepayers—particularly industrial and low income customers—and Duke's failure to provide the Commission with an "all-in" calculation of the combined rate impacts of all of Duke's planned spending denies the Commission and ratepayers a view of the true scope of those impacts.

Fourth, Duke's request for approval of its plan to construct new combined cycle ("CC") and combustion turbine ("CT") natural gas plants before 2030 is undercut by volatility in gas prices and supply risk that could make new gas plants stranded assets.

Finally, the evidence at the hearing showed that investment by Duke in offshore wind is unnecessary at this time because (1) offshore wind will not be needed to achieve the carbon reduction goals until the late 2030s, if at all, and (2) private investment in offshore wind will continue in the short term even if the Commission does not "select" offshore wind in this proceeding.

ARGUMENT

I. THE CARBON PLAN MUST BE THE LEAST-COST PLAN.

HB 951[2] sets forth two equally important mandates: First, that the Commission's Carbon Plan achieve the statutory carbon reduction goals; and second, that the Carbon Plan achieve those goals at the lowest possible cost.[3] CUCA notes several specific concerns with respect to the application of the "least cost" requirement.

In determining whether the plan is least-cost, HB 951 requires the Commission to "[c]omply with current law and practice with respect to the least cost planning for generation," which law and practice are described in statutes,[4] Commission rule,[5] and existing Commission decisions. Critical to defining the least cost plan is to do what the law and Commission rules require: to consider all supply-side and demand-side options for new power resources, including purchased power.[6] If utility ownership is not the least-cost

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[2] N.C. Session Law 2021-165, § 1 (*codified at* N.C. Gen. Stat. § 62-110.9).
[3] N.C. Gen. Stat. § 62-110.9(1)-(2).
[4] *E.g.*, N.C. Gen. Stat. §§ 62-2(3a), 62-110.1(d)-(e).
[5] N.C.U.C. Rule R8-60.
[6] N.C. Gen. Stat. §§ 62-2(3a), 62-110.1(d)-(e); N.C.U.C. Rule R8-60(c)-(g).

option, then Duke should be required to pursue alternative options that result in savings for ratepayers. The law and practice in North Carolina is that least-cost planning requires consideration of purchases from third-party energy suppliers.

CUCA's concern with "least cost" is amplified by the continued uncertainty regarding whether South Carolina ratepayers will share the costs associated with the Carbon Plan. Duke's modeling, though, assumes that allocations of costs will be made between states in accordance with their historical treatment, but this assumption has been placed in issue. This uncertainty, again, shows the need for caution.

Furthermore, as the Commission has noted, "it is important when applying the principle of long-term least cost planning for generation assets that the Companies avoid near term investments in long-lived generating assets that may, due to market forces and technological change, become economically stranded over the course of the longer planning period."[7] In other words, least-cost planning requires avoiding investments in the short-term that are likely to become stranded assets in the long-term.

Finally, CUCA supports call for consideration of market alternatives as a critical component of the least-cost inquiry.[8] Studies have shown that independent system operators and RTOs can lead to significant ratepayer savings and have associated benefits

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[7] *Order Accepting Filing of 2019 Update Reports and Accepting 2019 REPS Compliance Plans*, In the Matter of 2019 Integrated Resource Plan Update Reports and 2019 REPS Compliance Plans, Docket No. E-100, Sub 157, at 11 (April 6, 2020).

[8] *See* Tech Customers Comments, Docket No. E-100, Sub 179, at 5 (July 15, 2022); WalMart Comments, Docket No. E-100, Sub 179, at 12-14 (July 15, 2022); CCEBA Comments, Docket No. E-100, Sub 179, at 8-9 (July 15, 2022) (benefits of regional planning); CPSA Brattle Report (Exhibit E to CPSA Comments filed July 15, 2022), *passim* (benefits of inter-regional planning); Appalachian Voices Comments, Docket No. E-100, Sub 179, at 24 (July 15, 2022) ("recent independent analyses of decarbonizing through a Southeast RTO, indicate that such an approach could save ratepayers hundreds of billions of dollars region-wide by 2040 compared to a business-as-usual case.").

that are aligned with the goals of this proceeding—e.g., greater access to sources of renewable energy and better ability to plan for integration of renewables. These benefits should be evaluated as a component of this planning exercise.

II. DUKE'S REQUESTS FOR ASSURANCES REGARDING COST RECOVERY AND CPCN ISSUANCE SHOULD BE DENIED.

Much of Duke's request for relief in its Petition[9] in this proceeding is directed towards "pre-approval" of cost recovery for purposes of rate-setting or a "pre-determination" of need for purposes of the issuance of a CPCN.[10]

Despite its requests for relief, the Companies appear to agree that determination of the reasonableness and prudence of any specific costs in this proceeding would be inappropriate,[11] and they have withdrawn their request for authorization of deferral of long lead-time resources.[12] To the extent Duke seeks "assurances" that development costs will be recoverable, such a request is premature and should be denied. All parties appear to be in agreement on this point.[13]

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[9] Verified Petition for Approval of Carbon Plan, In the Matter of Duke Energy Progress, LLC, and Duke Energy Carolinas, LLC, 2022 Biennial Integrated Resource Plans And Carbon Plan, Docket No. E-100, Sub 179 (May 16, 2022) (hereinafter, "Petition").

[10] *See* Petition, at Sec. X.(2)(b), (c).

[11] Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's Pre-Hearing Comments on Non-Expert Track Legal and Policy Issues, Docket No. E-100, Sub 179, at 50 (Sept. 9, 2022).

[12] *Id.* at 49.

[13] *See, e.g.,* Public Staff Comments, Docket No. E-100, Sub 179, at 155-164 (July 15, 2022); AGO Comments, E-100, Sub 179, at 27-31 (July 15, 2022); Walmart Comments, Docket No. E-100, Sub 179, at 2-7 (July 15, 2022); NCSEA, *et al.*, Comments, Docket No. E-100, Sub 179, at 20-22 (July 15, 2022); Tech Customers Comments, Docket No. E-100, Sub 179, at 15-18 (July 15, 2022); CUCA Comments, Docket No. E-100, Sub 179, at 5-7 (July 15, 2022); CIGFUR Comments, Docket No. E-100, Sub 179, at 32-36 (July 15, 2022).

Further, the Commission should make clear that the selection of a near-term resource as part of the Carbon Plan does not constitute a finding of need for purposes of a CPCN proceeding. Duke's Carbon Plan filing asserts the Commission's selection of a generation resource in this proceeding does not preclude further scrutiny of the resource in a subsequent CPCN proceeding.[14] The Commission make clear that the selection of a resource for the Carbon Plan is not be a proxy for an actual CPCN proceeding. All non-Duke parties appear to be in agreement on this issue.[15]

III. DUKE SHOULD BE REQUIRED TO PREPARE AN ALL-IN ESTIMATE OF RATE IMPACTS FOR ALL RATEPAYERS, INCLUDING COMMERCIAL AND INDUSTRIAL CUSTOMERS.

CUCA Witness O'Donnell recommended the Commission require Duke to provide rate increases for a period of 10 years into the future.[16] Other intervenors made similar request for this information.[17] As Duke acknowledged, the Public Staff made a similar request of the Companies.[18]

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[14] Duke Energy Carbon Plan, Ch. 4, at 6 ("[T]he Companies are requesting the Commission to 'select' a defined amount of such resources, and have proposed substantial near-term development and procurement activities consistent with such defined amounts. The Commission will have further opportunity to assess such projects through future CPCNs, or through other regulatory processes as deemed necessary.").

[15] *See, e.g.,* Walmart Comments, Docket No. E-100, Sub 179, at 4-5 (July 15, 2022); Tech Customers Comments, Docket No. E-100, Sub 179, at 13-14 (July 15, 2022); CIGFUR Comments, Docket No. E-100, Sub 179, at 32-36 (July 15, 2022).

[16] Tr. Vol. 212, p. 212 (CUCA witness O'Donnell).

[17] *See* CIGFUR Comments, Docket No. E-100, Sub 179, at 16 (July 15, 2022) ("Without having thorough, complete information about anticipated rate impacts in the coming years resulting from costs both related and unrelated to the Carbon Plan, how can the Commission be in a position to evaluate whether the steps Duke has asked them to approve in implementing an initial Carbon Plan are reasonable, as is required by HB 951?").

[18] Tr. Vol. 28, p. 58.

Duke, however, refused to provide such information to ratepayers on the grounds that such forecasts are "neither feasible nor necessary in this proceeding."[19] Duke also suggested that no other utility had ever prepared such a forecast. Duke conceded, though, that Duke had prepared a 15-year forecast as part of its lobbying efforts at the General Assembly in 2021—a forecast that included the costs of its recent IRP plan, plus anticipated grid improvements.[20] Duke also admitted that the Virginia Clean Economy Act requires Dominion to provide a 10-year bill impact analysis for Dominion's resource development plan.[21] Thus, the forecast is far from infeasible.

The information is also necessary. Ratepayers expressly asked Duke for an all-in, long-term bill impact analysis. Ratepayers believe the information is necessary. That such an analysis will be constructed from assumptions that are subject to change does not undermine the utility of the analysis; assumptions concerning fluctuating inputs such as interest rates, inflation, and fuel costs are already incorporated into the Carbon Plan's long-term PVRR calculations upon which Duke asks the Commission and ratepayers to rely.[22] This explanation is particularly unsatisfying for CUCA's members, most of which have sophisticated, global operations supported by large financial departments that are fully capable of comprehending the risks that accompany long-term financial forecasts.[23]

In the end, there is no valid reason for withholding a long-term cost forecast from customers who are asking for such information. A cornerstone of the regulatory compact is transparency—indeed, full transparency of electricity costs is needed to help both the

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[19] Tr. Vol. 28, p. 52.
[20] Tr. Vol. 28, p. 73-76.
[21] Tr. Vol. 28, p. 78-83.
[22] Tr. Vol. 28, p. 77.
[23] Tr. Vol. 28, p. 76.

Commission to regulate utility services and ratepayers to make informed decisions about their futures. The information is just as necessary for manufacturing companies that might be assessing whether to locate a new facility in North Carolina as it is for homeowners who are trying to determine whether they should pay a premium for a more energy-efficient HVAC unit. Duke, though, refuses to empower ratepayers to make such informed decisions.

Duke—as a regulated utility—serves the public by providing electricity, and the public wants to know how much Duke's electricity will cost them in the future. Therefore, CUCA joins the Public Staff in calling for an all-in, long-term forecast of the bill impact of Duke's proposed Carbon Plan.

IV. DUKE HAS NOT SUFFICIENTLY JUSTIFIED AN IMMEDIATE NEED FOR THE CONSTRUCTION NEW GAS GENERATION FACILITIES.

CUCA's members rely on the availability of natural gas, at reasonable prices, to support their industrial and manufacturing operations. As such, the continued availability of gas is critical to the state's economy. CUCA has supported efforts to ensure expand gas availability in this state, including by supporting an extension by FERC of the construction period for the Mountain Valley Pipeline. Relatedly, CUCA's members have strong interest in ensuring the continued reliability of Duke's electric grid to support their operations. Again, this reliability is critical to their operations.

Nonetheless, with this backdrop, CUCA has significant concerns with Duke's request in this proceeding for immediate approval, as part of its near-term action plan, of the construction of new CC and CT gas generation resources. Such action would exacerbate the already insufficient supplies of existing gas available in this region and appears to be unnecessary—at least as a near-term action item—in light of the existing and significant risks associated with gas supply and gas price volatility.

A. Duke's Carbon Plan submissions fail to adequately account for gas supply risk.

Duke's initial Carbon Plan submissions acknowledge that there is significant risk that the Companies will not be able to obtain new firm transportation of natural gas fuel supply to support the new gas generation resources:

- "New gas interstate pipelines have been increasingly challenged through every permit approval required. The ability to bring additional gas supply to the Carolinas via pipelines is important to the success of the Companies' clean energy transition. . . . [A]dequate gas supply is the largest risk."[24]

- "[N]atural gas fuel supply is currently an area of considerable uncertainty and the way fuel supply develops can have impacts to the least cost portfolio of resources selected to achieve CO2 reduction targets, the cost to achieve targets, and the ability of a portfolio to robustly perform in fuel price sensitivities."[25]

- "[T]he Companies have significantly less generation gas supply requirements covered by interstate firm transportation than other peer southeast electric utilities and also have the risk of sole-sourced pipe supply, whereas other peer utilities have multiple pipeline sources. These risks expose the Companies to increased challenges if there are market disruptions or supply constraints."[26]

- "Without additional interstate pipeline firm transportation, the Companies have increased fuel assurance risk, increased customer fuel cost exposure and increased risk of delayed coal retirements. In addition, the Companies would continue to have a firm transportation portfolio that is less than half of its current combined-cycle design capacity need and less than a quarter of the current gas fleet's historical peak gas burn."[27]

- The Companies' alternatives that address a lack of new gas supply "create additional costs, executability challenges and reliability risks for customers."[28]

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[24] Duke Carbon Plan, Appendix M, p. 5.
[25] Duke Carbon Plan, Appendix E, p. 84.
[26] Duke Carbon Plan, Appendix N, p. 8.
[27] Duke Carbon Plan, Appendix N, p. 9.
[28] Duke Carbon Plan, Appendix N, p. 9.

- There is "uncertainty regarding access to gas from the Appalachia region," which required Duke to identify a "future 'pivot point'" at which "the Companies will refine resource decisions over the near-term depending on the Companies' ability to obtain firm transportation from Appalachia."[29]

However, despite these risks, the Companies allow selection of new gas resources even in their sensitivity analyses for no- or limited-new-supply scenarios, and force the selection of new CT resources in the "Battery-CT Optimization" step even under the assumption that no new gas supply will be obtained.[30]

The risks involved in obtaining new gas supplies sufficient to operate new gas generation resources was raised by a number of intervenors.[31] The Public Staff has raised the issue of Duke's natural gas supplies in a number of proceedings,[32] and specifically noted that it does not believe Duke's assumptions about natural gas availability in the Companies' initial Carbon Plan portfolios are reasonable.[33] CUCA witness O'Donnell highlighted the fact that even if the Mountain Valley Pipeline ("MVP") is built, that may not adequately supply the State's natural gas needs.[34]

CUCA's witness O'Donnell recommended the Commission order Duke to have discussions with Transco regarding costs to expand service into North Carolina.[35] As Mr. O'Donnell explained, there must be more natural-gas transportation capacity into North Carolina in order to fuel Duke's desire for additional gas plants—and the Commission

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[29] Duke Carbon Plan, Chapter 3, p. 13.

[30] *See, e.g.*, Duke Carbon Plan, Appendix E, p. 42; Modeling and Near-Term Actions Panel Exhibit 1 p. 13.

[31] E.g., Tr. Vol. 22, p. 36 (CIGFUR witness Gorman); Tr. Vol. 25, pp. 205-08 (CUCA witness O'Donnell); Tr. Vol. 25, pp. 263-270 (AGO witness Burgess).

[32] Tr. Vol. 23, pp. 23-25 (Public Staff witness Metz).

[33] Tr. Vol. 21, pp. 73-74 (Public Staff witness Thomas).

[34] Tr. Vol. 25, p. 208 (CUCA witness O'Donnell).

[35] Tr. Vol. 25, p. 208 (CUCA witness O'Donnell).

should be aware of these costs when planning the State's future electric needs. The Commission should not tolerate Duke's failure to provide a detailed plan—including associated costs—for supplying its new natural gas plants with fuel. Duke should not build natural gas plants based on the mere hope that transportation capacity will materialize in the future.

In sum, while Duke's modeling identifies the need for new CC and CT generation, Duke's planning leaves unresolved the uncertainty regarding how the Companies will supply fuel to these new gas plants.

B. Duke's Carbon Plan portfolios fail to account for natural gas price volatility.

As pointed out in the testimony of CUCA witness O'Donnell, Duke's price estimates for natural gas fuel supplies are below the current market price.[36] Although Duke's witnesses pointed out that the forward market for natural gas has lower prices than the current spot market, Duke has not secured a gas fuel supply for its proposed new CCs and CTs and the price of that fuel is still subject to market volatility. Thus, the volatility natural gas prices is not related solely to the *commodity* price of natural gas, it includes the *transportation* price of natural gas. The Commission should be wary of the cost of transporting natural gas because, as it stands today, pipeline capacity costs in North Carolina are a major risk to new natural gas generation. Duke admitted that, without firm supply of natural gas, the Companies are exposed to paying "exorbitant" delivery prices for natural gas.[37] It does not appear that Duke modeled such exorbitant delivery prices in

[36] Tr. Vol. 25, pp. 202-05 (CUCA witness O'Donnell).
[37] Tr. Vol. 27, p. 181 (Duke witness Snider).

its Carbon Plan portfolios—which means the Commission does not have a full window into the risks posed by Duke's desire to begin immediate construction of natural gas plants.

V. THE EVIDENCE SHOWS THAT COMMISSION APPROVAL OF NEAR-TERM INVESTMENT IN OFFSHORE WIND IS UNNECESSARY.

The Public Staff recommended that "the Commission deny Duke's request to begin near-term resource development activities for offshore wind."[38] CUCA agrees with the Public Staff, as well as the concerns of other intervenors.[39] Offshore wind does not appear in Duke's Supplemental Portfolios until the 2040s.[40] There is no need for ratepayers to start paying millions of dollars today for a technology that, if it is ever selected, would not be operations for another *two decades*. That is particularly so when Duke testified that its unregulated affiliate, which owns the Carolina Long Bay lease, has already begun working on the Site Assessment Plan[41] and must continue to develop the lease lest it be forfeit.[42]

CUCA agrees with the concerns expressed by Walmart on this point:[43]

> It is especially important that the Commission take steps to protect ratepayers from the Companies' request to recover costs of certain development activities because the magnitude of potential costs is significant, and the Companies have proposed no limitations on the costs they might incur. The Companies effectively seek a blank check, and the Commission should reject the request to approve as reasonable and prudent the Companies' incurrence of unknown project development costs.

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[38] Tr. Vol. 21, p. 127 (Public Staff witness Metz).

[39] *See, e.g.,* Tech Customers Comments, Docket No. E-100, Sub 179, at 7-10 (July 15, 2022); WalMart Comments, Docket No. E-100, Sub 179, at 7-9 (July 15, 2022).

[40] Tr. Vol. 7, p. 261 (Duke witness Snider).

[41] Tr. Vol. 17, p. 110 (Duke witness Pompee) ("Duke Energy Renewables Wind, LLC is currently working on the SAP, which is targeted for completion by mid-2023[.]").

[42] Tr. Vol. 17, p. 141 (Duke witness Repko).

[43] WalMart Comments, Docket No. E-100, Sub 179, at 9 (July 15, 2022).

Thus, the Commission should reject Duke's request for open-ended approval of "project development activities" or costs associated with offshore wind—a project without a fully demonstrated need and with potentially enormous costs.

CONCLUSION

The Carbon Plan is a tremendous undertaking that will help chart North Carolina's future—not just in terms of the electrical grid, but also in terms of the trajectory of our State's economy. CUCA is grateful for the Commission's careful attention to the numerous issues posed by the Carbon Plan, and CUCA asks that the Commission pay special attention to the issues of least-cost selections, natural gas constraints in North Carolina, the total financial impact borne by ratepayers, and unnecessary offshore wind investments.

Respectfully submitted, this 24th day of October, 2022.

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Certificate of Service

I hereby certify that a copy of the foregoing CUCA'S POST-HEARING BRIEF has been served this day upon all parties of record in this proceeding, or their legal counsel, by electronic mail.

This the 24th day of October, 2022.

BROOKS, PIERCE, MCLENDON,
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