STATE OF NORTH CAROLINA UTILITIES COMMISSION RALEIGH

DOCKET NO. E-100, SUB 179

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In the Matter of Duke Energy Progress, LLC, and Duke Energy Carolinas, LLC, 2022 Biennial Integrated Resource Plans and Carbon Plan

CUCA'S COMMENTS REGARDING CARBON PLAN

The Carolina Utility Customers Association, Inc. ("CUCA"), through counsel, respectfully submits these Comments regarding the Carbon Plan filed by Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP") (together, "the Companies," "Duke Energy," or "Duke").

INTRODUCTION

The 2022 Carbon Plan proceeding is the first step in Duke Energy's long journey to carbon-neutral generation in North Carolina. CUCA asks the Commission to start the voyage cautiously. The stakes are high, especially in terms of costs and reliability. Therefore, the Commission should (1) remain steadfast in its commitment to least-cost planning, (2) refuse to preordain any cost recovery or CPCN approvals, (3) carefully scrutinize Duke's insistence to build gas plants immediately, despite no guarantee of additional gas supply in North Carolina, (4) protect the reliability of our electric grid, and (5) enlist customers—in particular, large customers—in our State's carbon-reduction efforts by establishing new cost-competitive customer renewable programs.

COMMENTS

I. The Commission must remain resolute in North Carolina's commitment to least-cost planning.

The Companies present four portfolios that are essentially the same result at the same cost: \$100,000,000,000. Thus, Duke's proposed price tag for North Carolina's transition to clean energy is \$100 billion. Even in the context of electric utilities—in which we are accustomed to large expenditures—\$100 billion is a staggering amount of money for Duke Energy to demand from North Carolina ratepayers. With such high-priced stakes, CUCA exhorts the Commission to continue its tradition of diligently ensuring that the investments made by the Companies are truly the least-cost option. To that end, CUCA offers the following observations about least-cost planning.

First, traditional least-cost principles should apply to any new generation assets that the Companies propose to construct or own. If utility ownership is not the least-cost option, then Duke should be required to pursue alternative options that result in savings for ratepayers. Session Law 2021-165 mandates that the Commission remain faithful to "current law and practice with respect to least cost planning for generation."¹ Section 62-110.1(c) requires the Commission, as part of the CPCN process, to consider not only "generating plants" but also "arrangements for pooling power" and "other arrangements with other utilities and energy suppliers."² Similarly, Rule R8-60 requires that least-cost planning consider "all resource options,"³ and the first item of consideration is purchases of power from "wholesale suppliers and power marketers."⁴ The law and practice in North

¹ N.C. Session Law 2021-165, § 1(2).

² N.C. Gen. Stat. § 62-110.1(c).

³ N.C.U.C. Rule R8-60(c)(2).

⁴ N.C.U.C. Rule R8-60(d).

Carolina is that least-cost planning requires consideration of purchases from third-party energy suppliers.

Second, it is difficult to ascertain whether a new resource is the least-cost option for North Carolina ratepayers without knowing whether South Carolina ratepayers will share the resource's cost. Duke Energy refers to the Carbon Plan as the "*Carolinas* Carbon Plan,"⁵ but it is not. It is *North* Carolina's Carbon Plan. The Public Service Commission of South Carolina ("SCPSC") might not approve cost recovery for investments made to satisfy North Carolina's statutory mandates. Therefore, the price North Carolina ratepayers will pay for a new resource will fluctuate depending on whether or not the SCPSC will decide that its ratepayers should share in the expense. Duke Energy's modeling, though, assumes that North Carolina ratepayers will only pay for "their share" of Carbon Plan investments, with South Carolina picking up the balance. That is not a reliable assumption. The Companies' failure to account for this reality undermines the reliability of their leastcost analysis.

Third, the Companies may exceed the statutory carbon reduction targets only if additional emission reductions will save ratepayer's more money. CUCA applauds the State's commitment to a balanced path to achieving carbon reductions, yet it emphasizes that the General Assembly required the Commission to chart the *least-cost path* to achieving these statutory reductions. In other words, the General Assembly issued a two-fold mandate in Session Law 2021-165: (1) reduce carbon emissions to the statutory targets

⁵ See, e.g., Duke Energy, Carolinas Carbon Plan, *available at* <u>https://www.duke-energy.com/our-company/about-us/carolinas-carbon-plan</u> ("Our proposed Carolinas Carbon Plan is an important step toward 70% carbon dioxide (CO2) emissions reduction by 2030 and carbon neutrality by 2050, while providing multiple options that balance affordability and reliability for our customers.").

(2) at the lowest cost possible. Both mandates bear equal importance. While exceeding the General Assembly's carbon emission reductions may be desirable, it is impermissible absent an accompanying reduction in cost savings.

Fourth, the Commission should ensure that all sub-critical coal plants that are retired are subject to securitization. House Bill 951 requires the securitization of 50% of the remaining book value "of all sub-critical coal-fired electric generating facilities to be retired *to achieve the carbon reduction goals set forth*" in the Carbon Plan.⁶ Thus, if a sub-critical coal plant's retirement results in lower carbon emissions—which seems inescapable—the plant should be subject to securitization. Duke should not be able to exclude a retired coal plant from securitization by arguing that the plant was retired for economic reasons, not for carbon-emission reasons. Coal plants must be retired to achieve carbon neutrality. The sub-critical coal plants, therefore, must be securitized.

II. The Commission should refrain from preordaining Duke's receipt of necessary CPCNs and recovery of development costs.

This is not a cost recovery proceeding. This is also not a CPCN proceeding. Therefore, the Companies' requests for deferral accounting and preordained CPCN approvals is inappropriate.

A. The Carbon Plan proceeding is not a substitute for a CPCN proceeding.

To the extent the Commission selects a near-term resource as part of the Carbon Plan, the Commission should make clear that its selection is not a proxy for a CPCN proceeding. Although 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

⁶ N.C. Session Law 2021-165, § 5.

a subsequent CPCN proceeding,⁷ Duke's response to a data request argues otherwise. Duke Energy contends that "to the extent the Commission selects a resource as part of an approved Carbon Plan, the Commission's Carbon Plan ruling *should be controlling in a CPCN proceeding* absent a material change in facts and circumstances from Carbon Plan assumptions."⁸

The Carbon Plan proceeding is not a CPCN proceeding. A CPCN application must include detailed site information, justifications for the project, agency approvals, construction dates, the utility's most-recent IRP, environmental concerns, and alternatives considered—among other various pieces of information.⁹ The Companies' Carbon Plan lacks most of this information. The Commission's selection of a resource for the Carbon Plan should not be a proxy for an actual CPCN proceeding.

B. The Carbon Plan is not a cost recovery proceeding.

Duke Energy asks the Commission to make several cost recovery decisions regarding its development activities related to small modular reactors, offshore wind, and pumped storage. The Companies ask that their "initial project development activities" related to these resource be deemed "reasonable and prudent"; that the Companies be authorized to apply deferral accounting to the costs; and that the Commission preordain

⁷ 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.").

⁸ Duke Energy Response to Public Staff DR 11-2 (emphasis added). (Exhibit A)

⁹ See N.C.U.C. Rules R8-61(a), (b); R8-62(c).

that the development costs will be recoverable even if the projects fail.¹⁰ Duke is not entitled to special treatment for these routine development costs.

Duke claims that these requests are authorized by Section 62-110.7—but they are not. Section 62-110.7 addresses recovery for nuclear-generation projects,¹¹ it does not authorize recovery for offshore wind and pumped-storage development costs. The statute also does not provide for a return on costs for cancelled projects.¹² In addition, Section 62-110.7 requires a utility to provide information that demonstrates that it is prudent to incur the development costs;¹³ but, here, Duke fails to disclose the dollar amounts for its development activities and, thus, is asking for a blank check.

As an example of the dearth of evidence supporting the prudence of these development costs, Duke Energy seeks recovery and deferral accounting for a "wind energy areas" lease.¹⁴ To be more precise, it appears the Companies are expecting ratepayers to reimburse Duke Energy Corp. for its subsidiary's recent \$155 million winning bid for the Carolina Long Bay federal lease.¹⁵ Duke Energy makes this reimbursement request while admitting that its Carbon Plan modeling *does not include* the Carolina Long

¹⁰ Duke Energy Verified Petition for Approval of Carbon Plan, at 15.

¹¹ N.C. Gen. Stat. § 62-110.7(a), (b).

¹² Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction, *In the Matter of Application of Duke Energy Carolinas, LLC, for Adjustment of Rates and Charges Applicable to Electric Utility Service in North Carolina*, Docket No. E-7, Sub 1146 (June 22, 2018), at 152 ("It should be noted that while N.C. Gen. Stat. § 62-110.7(c) provides for rate base treatment of project development costs and therefore includes a return, N.C. Gen. Stat. § 62-110.7(d), applicable to cancelled projects, only requires amortization of the costs and does not mention, and certainly does not mandate, a return.").

¹³ N.C. Gen. Stat. § 62-110.7(b).

¹⁴ Duke Energy Carbon Plan, Ch. 4, at 6.

¹⁵ See U.S. Dep't of Interior, *Biden-Harris Administration Announces Winners of Carolina* Long Bay Offshore Wind Energy Auction (May 11, 2022), available at <u>https://www.doi.gov/pressreleases/biden-harris-administration-announces-winners-carolina-long-bay-offshore-wind-energy</u>.

Bay project; instead, the Carbon Plan modeled a generic power purchase agreement for the initial tranche of offshore wind.¹⁶ Despite the Carbon Plan omitting Carolina Long Bay, Duke Energy presents the Carbon Plan as justification for customers paying for the federal lease now.

Finally, the Commission should specifically reject the Companies' request for deferral accounting of the development costs. Deferral accounting is appropriate only when "the costs proposed for deferral are extraordinary in type and extraordinary in magnitude."¹⁷ These costs are neither. The projects are standard resource-planning activities that Duke Energy was already undertaking before the Carbon Plan. Back in 2020, Duke had voluntarily committed to carbon-reduction goals similar to the Carbon Plan¹⁸ and identified SMR, offshore wind, and pumped storage as potential resources.¹⁹ Duke Energy also failed to show that, absent deferral, these costs will have a material impact on its financial condition. Indeed, the Companies did not disclose the expected costs.

¹⁶ Duke Energy Response to Tech Customers DR 2-7(a) (Exhibit B); *see also* Duke Energy Carbon Plan, App. J, at 6 ("Note that achieving the January 1, 2030, in-service date would require partnering on an offshore project that has already advanced beyond the leasing stage.").

¹⁷ Order Accepting Stipulations, Granting Partial Rate Increase, and Requiring Customer Notice, *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-7, Sub 1214 (March 31, 2020), 138.

¹⁸ "All portfolios [in the 2020 IRP] keep Duke Energy on a trajectory to meet its near-term enterprise carbon-reduction goal of at least 50% by 2030 and long-term goal of net-zero by 2050." Duke Energy Carolinas Integrated Resource Plan 2020 Biennial Report, Docket No. E-100, Sub 165 (Sept. 1, 2020), at 6; *see also* Duke Energy Progress Integrated Resource Plan 2020 Biennial Report, Docket No. E-100, Sub 165 (Sept. 1, 2020), at 6 (same).

¹⁹ Duke Energy Carolinas Integrated Resource Plan 2020 Biennial Report, Docket No. E-100, Sub 165 (Sept. 1, 2020), at 11 (The 2020 portfolios "explore the most economic and earliest practicable paths for coal retirement; acceleration of renewable technologies including solar, onshore and offshore wind; greater integration of battery and pumped-hydro energy storage; expanded energy efficiency and demand response and deployment of new zero-emitting load following resources (ZELFRs) such as small modular reactors (SMRs)."); *see also* Duke Energy Progress Integrated Resource Plan 2020 Biennial Report, Docket No. E-100, Sub 165 (Sept. 1, 2020), at 11 (same).

III. Duke's plan is premised on natural gas that may not exist.

Duke Energy is candid in its assessment of the continuing supply of natural gas in North Carolina: the future is bleak. Duke Energy admits that it is short on natural gas now and that it does not have a clear roadway for securing more natural gas in the future. Yet, the Companies want to persist in building more natural gas without first securing firm transportation for the fuel necessary to run those plants. The Companies also fail to account for the price volatility of natural gas in North Carolina.

As a result, Duke Energy's Carbon Plan masks the problem that North Carolina faces regarding natural gas. While Duke's Carbon Plan fails to confront the natural-gas crisis facing North Carolina—and, instead, pushes forward with building more gas plants despite the crises—the Commission should make clear to Duke Energy that securing more firm transportation of natural gas is mission critical to our state's energy future.

A. Duke Energy's modeling failed to account for a lack of more natural gas.

Natural gas may be a necessary bridge to a carbon-free future. But it cannot be a hypothetical bridge, it must be a bridge that actually exists—yet, in North Carolina the availability of natural gas is far from certain. The Companies already lack sufficient natural gas to fuel their gas plants: "The Companies' combined cycle fleet is *currently deficient* of interstate pipeline firm transportation capacity due to the cancellation of Atlantic Coast Pipeline ("ACP")."²⁰ They caution that there is no natural gas to purchase in North Carolina during peak demand: "The Transco pipeline, the primary interstate gas infrastructure through the Carolinas, is fully subscribed and constrained during times of high utilization"²¹

²⁰ Duke Energy Carbon Plan, App. N, at 2.

²¹ Duke Energy Carbon Plan, App. N, at 7.

Duke cannot get enough gas today, and it is not alone. Industrial users are also facing severe constraints in the availability of natural gas to support their business operations. And the scarcity of natural gas is only going to increase. Georgia Power—which is upstream on the Transco pipeline to the Companies—is planning to build between 5 GW and 10 GW of natural gas plants.²² That is in addition to Duke's plan to build more gas plants that pull from the same pipeline. The growing demand in the Southeast for an already scare resource will increase fuel costs borne by North Carolina ratepayers and force more curtailments on North Carolina industrial consumers of gas.

The Companies, however, offer no solution for the lack of natural gas. They merely assume there will be sufficient access to firm transportation from Appalachia region.²³ The basis for this assumption is weak. [BEGIN CONFIDENTIAL]



²² See Georgia Power 2022 Integrated Resource Plan, Georgia Public Service Commission Docket No. 44160 (Jan 31, 2022), at 10-17 (Figure 11), *available at* <u>https://psc.ga.gov/search/facts-document/?documentId=188519</u>.

²³ See Duke Energy Carbon Plan, App. N, at 8.

 ²⁴ See Duke Energy's Response to Public Staff DR 3-21. (Exhibit C)
²⁵ Id.

Despite North Carolina's inability to secure more natural gas, Duke Energy's Carbon Plan calls for the construction of more natural-gas plants. The Companies, though, fail to justify why, in a future with no assurance of more natural gas, they are aggressively choosing to build natural-gas plants.²⁶ While Duke points to its Alternate Gas Supply analysis to support its commitment to build more gas plants,²⁷ the alternative modeling simply does not support building more gas plants in the absence of new firm transportation.

Duke's Alternate Gas Supply analysis consists of merely limiting the model's selection of combined cycle plants.²⁸ But a lack of firm transportation means there is no assurance of more gas, which means there could be *no gas* to fuel a new combined cycle plant. Yet, Duke's Alternative Gas Supply analysis choses to build 800 MW of combined cycle generation.²⁹ Moreover, the Alternate Gas Supply analysis limits only the selection combined cycles; the model can still select combustion turbines—and it does so abundantly, selecting between 8 GW to 10 GW of them by 2050.³⁰ Thus, Duke Energy's "solution" for a lack of new firm transportation of natural gas is to build nearly 10 GW of natural-gas plants.

B. Duke Energy's modeling failed to use realistic forecasts for natural gas prices.

Duke Energy's modeling also fails to account for the price of natural gas. North Carolina faces compounding threats to natural-gas prices: economic factors that are driving

²⁶ Duke Energy Carbon Plan, Ch 4, at 14.

²⁷ Duke Energy Carbon Plan, Ch 3, at 12–13.

²⁸ Duke Energy Carbon Plan, App. E, at 86 ("Due to the fuel supply limitations, only 800 MW, or one CC-F, is available for selection in this sensitivity.").

²⁹ Duke Energy Carbon Plan, App. E, at 86 (Table E-84).

³⁰ Duke Energy Carbon Plan, App. E, at 86 (Table E-84).

up the price of gas nationally; and regional factors that are driving up the price of gas available in North Carolina.

The price of natural gas is a problem. The Henry Hub spot price for natural gas in June was \$7.70 per MMBTU.³¹ Duke Energy, however, used the following prices for its Carbon Plan, which are significantly lower than the current price of gas:³²





Notably, Duke's base forecasts stays below \$4 until 2032 and *never* reaches \$8. Even its high case does not hit \$8 until 2037—which is fifteen years from now. The Companies' price forecasts are not consistent with current national prices.

Not only do the Companies' gas prices miss the mark for national averages, they fail to account for transportation constraints in North Carolina. As shown in the table below, gas available at Transco Zone 5 trades at a premium compared to gas available at

³¹ See U.S. Energy Information Administration, Henry Hub Natural Gas Sport Price (Release Date June 7, 2022), available at <u>https://www.eia.gov/dnav/ng/hist/rngwhhdm.htm</u>.

³² Duke Energy Carbon Plan, App., at 41 (Figure E-7).

other hubs—at times, the price at Transco Zone 5 spikes to *nearly double* the price of gas at other national hubs.



Table: Comparison of Gas Prices at National Hubs³³

Duke Energy acknowledges that transportation constraints increase gas prices,³⁴ and that North Carolina is severely constrained³⁵—yet this reality does not flow into their price forecasts. Duke's price forecasts are not consistent with North Carolina's gas prices.

³³ S&P Global Market Intelligence (accessed on July 7, 2022). Transco Zone 4 transports gas to Georgia. Columbia Gas Transmission ("TCO pool") is a pipeline that transports gas from the Gulf of Mexico to New York, with pipelines are in Pennsylvania, New Jersey, Maryland, Ohio, Virginia, and West Virginia. Texas Eastern Pipeline (TETCo) is a pipeline that transports gas from the Gulf of Mexico through Mississippi, Arkansas, Tennessee, Missouri, Kentucky, Illinois, Indiana, Ohio, and Pennsylvania, to deliver gas in New York. Lebanon, Leidy, and Dominion North are hubs in Pennsylvania. Dominion South point is located in the Appalachian Basin, near Pittsburgh, Pennsylvania.

³⁴ Duke Energy Carbon Plan, App. N, at 9 ("Charles Rivers Associates also recently performed a modeling exercise that shows no new pipeline infrastructure in the U.S. could... result in an annual average price increase of 33% for delivered natural gas in 2030 [for the Carolinas].").

³⁵ See Duke Energy Carbon Plan, App. N, at 2, 7.

C. Duke must present a better plan for the risks associated with natural gas.

To be clear, CUCA is not opposed to more natural-gas plants if they are a least-cost resource to achieving the Carbon Plan. CUCA, though, is deeply troubled that Duke Energy wants to push ahead with the construction of gas plants in the absence of available fuel and, for any fuel that might be found, accurate price forecasts. Ratepayers should not bear the financial fallout of Duke's risk taking. This is especially so when such risks can be mitigated. For example, the now-cancelled Atlantic Coast Pipeline is evidence that Duke Energy has the means to try to solve the supply problem, rather than just hoping the problem will solve itself. If the Companies want more gas plants, inaction is not an option.

The Commission should direct the Companies to present (1) a detailed plan for securing additional natural gas in North Carolina and (2) a Carbon Plan based on more accurate natural gas price forecasts. CUCA asks the Commission to make clear that, until the Companies do so, they will not build another gas plant with ratepayers' money. Alternatively, if Duke Energy insists on building natural gas plants without a plan for addressing these significant problems, then ratepayers should not standalone in bearing the risk of the Companies' haste: the Companies should share in the financial risk by introducing a risk-sharing Performance Incentive Mechanism in its upcoming general rate cases.³⁶

IV. The transition to clean energy cannot undermine the reliability of North Carolina's electric grid.

North Carolina's industrial manufacturers provide jobs for citizens, essential supplies for businesses and consumers, and tax revenues for local communities. North Carolina needs reliable jobs, reliable supplies, and reliable fiscal budgets. To continue to

³⁶ See N.C.U.C. R1-17B(d)(3).

provide these, manufacturers need a reliable electric grid. Although the Commission cannot allow Duke to overbuild generation and transmission, the Commission should diligently ensure that the transition to renewable, intermittent resources does not undermine the reliability of North Carolina's electric grid.

Troublingly, it appears that America faces the risk of blackouts becoming frequent enough in the future to be viewed as commonplace. Before the summer arrived, grid operators were already warning ratepayers of potential supply shortfalls during forecasted peak demands.³⁷ Blackouts should not be commonplace in America, which has the largest, most developed economy in the modern world. North Carolina's transition to clear energy cannot—and need not—place us among states that have become accustomed to energy shortages.

When selecting intermittent renewable resources, such as solar and wind, the Commission should backstop the resources with the availability of dispatchable resources. Renewables resources have the attractive advantages of lower marginal costs and lower environmental impacts. But the intermit nature of renewables requires careful attention to ensure that power remains available whenever needed.

³⁷ See, e.g., Robert Walton, MISO Prepares for 'Worst-case Scenarios,' Heads into Summer with Insufficient Firm Generation, Utility Dive (Apr. 29, 2022), available at https://www.utilitydive.com/news/miso-prepares-for-worst-case-scenarios-heads-into-summerwith-insufficie/622932/; Robert Walton, After Calls for Conservation and Generator Failures, Texas' Grid Survived the Weekend. It's Still May., Utility Dive (May 16, 2022), available at https://www.utilitydive.com/news/after-calls-for-conservation-and-generator-failures-texas-gridsurvived-t/623792/; Robert Walton, NERC Sounds Alarm on Solar Tripping in 'Sobering' Summer Reliability Report, Utility Dive (May 19, 2022), available at https://www.utilitydive.com/news/nerc-summer-reliability-report-west-miso-ercot/624043/.

V. Duke Energy's plan fails to take advantage of ratepayers' willingness to help in reducing carbon emissions.

Many ratepayers are ready, willing, and able to invest in renewable resources. In particular, some commercial customers are willing to install their own renewable generation to accomplish their own ESG targets, and some industrial customers are eager to have the freedom to purchase clean energy that matches their demand. In each case, the consumers are ready to *reduce carbon emissions* and *pay for the increased cost themselves*. This is a double win for the population of ratepayers: reduced emissions and at no cost to the remaining ratepayers. Customer empowerment is the optimal least-cost pathway to carbon reductions.

Session Law 2021-165 calls for a "voluntary program that will allow" customers to purchase from Duke Energy renewable energy "to offset their energy consumption."³⁸ This is a call for a *new* cost-effective renewable program for industrial customers. The current leading large-customer program, Green Source Advantage, is capped at only 600 MW of renewable energy facilities between the Companies (with 350 MW being set aside for UNC and the military) and individual customers can only subscribe to capacity up to 125% of their annual peak demand.³⁹ Green Source Advantage is insufficient to allow North Carolina's industrial customers to offset their consumption with renewable energy.

Duke Energy, however, offers little to solve for this. Rather, the Companies merely state that their large-customer clean-energy programs "revolve around" self-sourced

³⁸ N.C. Session Law 2021-165, § 5. The program is also required to allow a customer to elect, as an alternative to purchasing renewable energy, to purchase renewable energy credits to offset their consumption.

³⁹ N.C. Gen. Stat. § 62-159.2.

energy, utility-sourced energy, and battery storage.⁴⁰ But they offer no details for future programs to address the large customers' demand for new programs. Instead, Duke then says it will "build upon" the success of its existing programs.⁴¹ The Companies can do more. They should join stakeholders in proposing specific programs and tariffs that allow industrial customers to contract with renewable-energy sources and pay for transmission service through the Duke system. This flexibility will allow large customers to procure the renewable energy they want without having to wait for Duke's broader carbon-reduction effort.

CONCLUSION

CUCA respectfully submits these Comments for the Commission's consideration as it determines the least-cost pathway to carbon reduction.

Respectfully submitted, this 15th day of July, 2022.

/s/ Craig D. Schauer

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Attorneys for Carolina Utility Customers Association, Inc.

 ⁴⁰ Duke Energy Carbon Plan, App. G, at 17.
⁴¹ *Id*.

Certificate of Service

I hereby certify that a copy of the foregoing CUCA COMMENT'S REGARDING CARBON PLAN has been served this day upon the parties of record in this proceeding by electronic mail.

This the 15th day of July, 2022.

BROOKS, PIERCE, McLENDON, HUMPHREY & LEONARD, LLP

/s/ Craig D. Schauer

DUKE ENERGY CAROLINAS, LLC and DUKE ENERGY PROGRESS, LLC

REQUEST:

On page 15 of its Verified Petition for Approval of Carbon Plan, and on page 28 of the Executive Summary, Duke requests that the Commission "[a]ffirm that the Companies' Carbon Plan modeling is reasonable for planning purposes and presents a reasonable plan for achieving HB 951's authorized CO2 emissions reductions targets in a manner consistent with HB 951's requirements and prudent utility planning." Please explain what Duke believes would be the consequences of Commission approval of Duke's proposed Carolinas Carbon Plan. Specifically:

- a. How would approval of the proposed Carolinas Carbon Plan impact proceedings for CPCNs and CECPCNs necessary for resources identified in the plan (including, but not limited to, the determination of need for the project);
- b. How would approval of the proposed Carolinas Carbon Plan impact the determination of whether costs for a project are "reasonable and prudent" in a general rate case; and
- c. How would approval of the proposed Carolinas Carbon Plan impact applications for review of project development costs under NCGS 62-110.7 or other authority?

RESPONSE:

a. The Companies object to this request on the grounds that it calls for legal analysis and the impressions of counsel that are protected by the attorney-client privilege and, furthermore, seeks information regarding applicable law and potential Commission precedent that is publicly available. Without waiving the foregoing objections and reserving the Companies' right to modify its legal position in the future, the Companies state that to the extent the Commission selects a resource as part of an approved Carbon Plan, the Commission's Carbon Plan ruling should be controlling in a CPCN proceeding absent a material change in facts and circumstances from Carbon Plan assumptions. See the Companies' comments in Docket No. E-100, Sub 178 for further details regarding the appropriateness of utilizing Carbon Plan determinations to inform future CPCN proceedings.

b. The Companies object to this request on the grounds that it calls for legal analysis and the impressions of counsel that are protected by the attorney-client privilege and, furthermore, seeks information regarding applicable law and potential Commission precedent that is publicly available. Without waiving the foregoing objections and reserving the Companies' right to modify its legal position in the future, HB 951, Section 1 directs the Commission to take all reasonable

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steps to achieve the authorized CO_2 emissions reductions goals and requires that any new generation facilities or other resources selected by the Commission in order to achieve the authorized reduction goals shall be owned and recovered on a cost of service basis, excepting the required allocation for solar and solar-plus-storage resources. To the extent the Commission selects a resource as part of an approved Carbon Plan, it is both necessary and reasonable and prudent for the Companies to proceed with developing and/or procuring such resource, including by incurring costs which should be recoverable on a cost of service basis in a future proceeding (and in the case of new generating resources, the Commission will have a further opportunity to approve through any necessary CPCN proceeding). All activities of the Companies will be assessed in future rate cases to confirm the prudence of the Companies' execution.

c. The Companies object to this request on the grounds that it calls for legal analysis and the impressions of counsel that are protected by the attorney-client privilege and, furthermore, seeks information regarding applicable law and potential Commission precedent that is publicly available. Without waiving the foregoing objections and reserving the Companies' right to modify its legal position in the future, the Companies' request in this proceeding for approval of certain development costs (including development costs for SMRs) is functionally the same as Commission pre-authorization to incur project development costs under N.C. Gen. Stat. 62-110.7 (and the Commission is free to deem such approval for SMR development costs as occurring under N.C. Gen. Stat. 62-110.7). The Companies believe a Commission determination on this issue is appropriate at this time, which would obviate a need for any subsequent application under N.C. Gen. Stat. 62-110.7.

As identified in the Carbon Plan Executive Summary and further addressed in Chapter 4 (Execution Plan), at page 6-7, the Companies are requesting the Commission make the following three findings with respect to project development activities and associated costs relating to new nuclear and other proposed near-term development activities for long-lead-time new supply side resources:

- (1) engaging in initial project development activities for these resources is a reasonable and prudent step in executing the Carbon Plan to enable potential selection of these generating facilities in the future;
- (2) to the extent not already authorized under applicable accounting rules, that the Companies are authorized to defer associated project development costs for recovery in a future rate case (including a return on the unamortized balance at the applicable Company's then authorized, net-of-tax, weighted average cost of capital), subject to the Commission's review of the reasonableness and prudence of specific costs incurred in such future proceeding; and

(3) that in the event such long-lead time resources are ultimately determined not to be necessary to achieve the energy transition and the CO2 emission reduction targets of HB 951, such project development costs will be recoverable through base rates over a period of time to be determined by the Commission at the appropriate time.

See also the Companies' response to PSDR 7-6.

Responder: Glen Allen Snider, Managing Director, IRP & Analytics

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DUKE ENERGY CAROLINAS, LLC and DUKE ENERGY PROGRESS, LLC

Tech Customers

2022 Carbon Plan

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REQUEST:

Please reference pages 4-10 of Appendix J and Duke Energy Renewables Wind, LLC's selection as provisional winner of the Carolina Long Bay OCS-A 0546 lease area. The general facility to be constructed pursuant to this lease is referred to as the "Duke OSW Facility."

- a. Please confirm that the 800 MW blocks of OffShore Wind selected in Portfolios 1-4 (to the extent OffShore Wind is selected in any particular portfolio) is unrelated to any potential wind generated from the Duke OSW Facility.
- b. Provide the Company's best estimate of the total costs to be incurred in connection with the construction of the Duke OSW Facility broken down into various components of cost.
- c. How does Duke Energy propose to recover costs associated with construction of the Duke OSW Facility? In particular, does Duke Energy propose to include such costs in North Carolina ratebase and, if so, what is the mechanism by which Duke Energy would propose to utilize to include such costs incurred by its affiliated entity in ratebase.
- d. Provide a timeline for the completion of construction of the Duke OSW Facility.
- e. How will the Duke OSW Facility project be impacted if the South Carolina Public Service Commission does not permit cost recovery?
- f. What approval, if any, is Duke Energy seeking from the Commission in this proceeding with respect to the Duke OSW Facility (including any costs related to the Duke OSW Facility)?

RESPONSE:

a. The offshore wind block selected in the Carbon Plan modeling is a generic offshore wind block and not a site-specific selection.

Responder: Clift Pompee, Managing Director, Generation Technology

b. As explained in the Companies' response to 2-4(a), the offshore wind block selected in the Carbon Plan modeling is a generic offshore wind block and not a site-specific selection.

The following estimates for the Carolina Long Bay offshore wind facility are conceptual and subject to further development. These estimates are based on industry data and indicative pricing from one original equipment manager, adjusted for the year in which some of these expenses would occur. These projections could change over time due to a variety of circumstances. The estimates are also based on a 1,600 MW project in Carolina Long Bay with an In-Service date of 2032.

Lease Cost and Annual Rent Payment to BOEM - \$157M Development Expenses (including engineering) - \$280M Radial Transmission (from point of insertion to substation, incl. DC/AC converter station) -\$1,890M Construction Expenses (incl. turbine procurement) - \$4,830M Total: \$7,157M

Network Transmission (from substation to load-center) - \$995M

Total: \$8,152M

Responder: Adam R. Reichenbach, Lead Engineer

c. In this Carbon Plan, the Companies are not requesting that the Commission select offshore wind. Instead, the Companies have requested Commission approval to incur development costs in connection with offshore wind. To the extent that the Commission selects offshore wind as part of the Carbon Plan in the future, the related costs would be recovered through traditional cost-ofservice based rates.

Responder (part c.): Clift Pompee, Managing Director, Generation Technology

d. As explained in the Companies' response to 2-4(a), the offshore wind block selected in the Carbon Plan modeling is a generic offshore wind block and not a site-specific selection.

The tentative timeline for the Carolina Long Bay offshore wind facility, based on BOEM regulations and industry experience, is as follows:

Site Assessment Plant (SAP) Development: Jul 2022 - Jun 2023 BOEM Review/Approval of SAP: Jun 2023 - Dec 2023 Site Assessment Activities: Jan 2024 - Jan 2026 Construction & Operations Plan (COP) Development: Jan 2024 - Jul 2026 Permitting/COP Environmental Review/Approval: Jul 2026 - Jul 2029 Construction: Aug 2029 - Aug 2032

Responder: Adam R. Reichenbach, Lead Engineer

e. The Companies have not formally assessed a scenario in which the PSCSC does not permit cost recovery of any offshore wind facility selected by the Commission as part of the Carbon Plan. As explained in the Carbon Plan, the Companies intend to seek continued alignment between the states. To the extent that alignment cannot be achieved, it will be necessary for each state to separately plan to serve its respective retail load. In such an extreme scenario, the Companies believe that, if the Commission selected offshore wind facility as part of the Carbon Plan, this carbon-free resource would likely be needed serve NC retail load and would therefore continue to be part of the least-cost path to HB 951's CO2 emissions reductions targets. In any event, as explained in the Carbon Plan, the Companies expect to have more clarity in the 2024 Carbon Plan proceeding regarding the extent of state alignment, at which point the Commission can determine whether to select offshore wind based on the then applicable regulatory framework.

f. The Companies have requested Commission approval to proceed with offshore wind development activities, as described in the Executive Summary and Chapter 4 (Execution Plan). Securing a lease is one of the development activities identified in Chapter 4 (see e.g., Table 4-9).

Responder (parts e. and f.): Clift Pompee, Managing Director, Generation Technology

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CUCA Comments Exhibit C

DUKE ENERGY RESPONSE TO PUBLIC STAFF DATA REQUEST 3-21