

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-100, SUB 191

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of	
Rulemaking Proceeding Related to Biennial)
Consolidated Carbon Plan and Integrated)
Resource Plans of Duke Energy Carolinas,)
LLC, and Duke Energy Progress, LLC,)
Pursuant to N.C.G.S. § 62-110.9 and)
§ 62-110.1(c))
	ORDER ADOPTING COMMISSION
	RULE R8-60A AND AMENDING
	COMMISSION RULES R8-60,
	R8-67, AND R8-71

BY THE COMMISSION: North Carolina General Statutes Section 62-110.9 (Carbon Plan Statute) directs the Commission to take all reasonable steps to achieve a seventy percent reduction in emissions of carbon dioxide in the State from electric generating facilities owned or operated by Duke Energy Carolinas, LLC (DEC), and Duke Energy Progress, LLC (DEP; collectively, Duke or the Companies), from 2005 levels by the year 2030 (Interim Target) and carbon neutrality by the year 2050 (2050 Target), subject to certain discretionary limitations. In accordance with the Carbon Plan Statute, the Commission issued an Order Adopting Initial Carbon Plan and Providing Direction for Future Planning on December 30, 2022, in Docket No. E-100, Sub 179 (Initial Carbon Plan). The Carbon Plan Statute directs the Commission to review the plan every two years after the adoption of the Initial Carbon Plan.

Prior to the enactment of the Carbon Plan Statute, the Commission was required by N.C.G.S. § 62-110.1(c) to analyze the long-range needs for expansion of facilities for the generation of electricity in North Carolina. To implement the requirements of this statute, the Commission adopted Rule R8-60, which requires all electric public utilities to develop a biennial integrated resource plan (IRP) that covers the succeeding two-year period and to update that plan each year in which the biennial report is not due.

The Initial Carbon Plan provided that “[f]or regulatory efficiency, the Commission deems it reasonable and necessary to consolidate its IRP planning function pursuant to N.C.G.S. § 62-110.1(c) and its Carbon Plan development and execution oversight function pursuant to N.C.G.S. § 62-110.9.” Initial Carbon Plan at 33. To this end, Ordering Paragraph No. 2, subparts a through e, of the Initial Carbon Plan directed Duke to engage with the Public Staff and any interested stakeholders to propose a new rule governing the consolidated Carbon Plan and IRP processes (as consolidated, CPIRP), subject to certain parameters contained in the subparts of Ordering Paragraph No. 2, and to file the proposed rule with the Commission by no later than April 28, 2023, in a new and separate

proceeding. The parameters required by the Initial Carbon Plan for the new rule are as follows:

1. By September 1, 2023, and every two years thereafter, Duke shall file with the Commission its proposed biennial CPIRP, including the testimony and exhibits of expert witnesses. At the time of the filing, Duke shall provide complete modeling input and output data files to intervenors. Each proposed biennial CPIRP shall include a proposed near-term action plan discussing the specific actions Duke recommends taking over the near term following the Commission's final order on the proposed CPIRP;
2. No later than 180 days after the later of either September 1 or the filing of Duke's proposed biennial CPIRP, the Public Staff or any other intervenor may file testimony and exhibits of expert witnesses commenting on, critiquing, or giving alternatives to Duke's proposed CPIRP;
3. No later than 45 days after the filing of intervenor testimony and exhibits, Duke may file its rebuttal testimony and exhibits of expert witnesses;
4. The Commission shall schedule an expert witness hearing to review the CPIRP proposals beginning on the second Tuesday in May following Duke's proposed biennial CPIRP filing, and shall set one or more hearings to receive testimony from the public at a time and place of the Commission's designation; and
5. The proposed rule filing shall also propose a separate mechanism for the filing and review of annual compliance plans that DEP and DEC previously filed with their respective IRP filings.

With respect to enumerated paragraph No. 5 above, DEP and DEC currently are required to file with their IRPs: (1) an annual Renewable Energy and Energy Efficiency Portfolio Standard (REPS) Compliance Plan pursuant to N.C.G.S. § 62-133.8 and Commission Rules R8-67(b) and R8-60(h)(4); and (2) an annual Competitive Procurement of Renewable Energy Program plan (CPRE Program Plan) pursuant to N.C.G.S. § 62-110.8 and Commission Rule R8-71(g).

On March 22, 2023, Duke filed in Docket No. E-100, Sub 191 its Notice of Upcoming Stakeholder Meeting on Proposed Draft Carbon Plan and Integrated Resource Plan Rule Development, in which it provided notice to the Commission of its intent to host a stakeholder meeting on April 4, 2023, with a second meeting planned for on or around April 13, in order to engage with interested stakeholders on the development of a new Commission rule governing the biennial CPIRP.

On April 28, 2023, Duke filed in Docket No. E-100, Sub 191 its Initial Comments, Proposed Rules to Consolidate Carbon Plan and Integrated Resource Planning Requirements, and Request to be Released from Pre-HB 951 Directives (Petition). In its

Petition, Duke proposes a new rule applicable to the Commission's review and approval of Duke's proposed biennial CPIRPs — proposed Commission Rule R8-60A — and proposes revisions to three existing Commission rules: Rules R8-60 (IRP), R8-67 (REPS), and R8-71 (CPRE). Finally, Duke requests that it be released from compliance with resource planning directives contained in Commission IRP orders issued prior to the effective date of N.C.G.S. § 62-110.9 (Legacy IRP Order Directives).

Duke states that the proposed rules were developed in collaboration with the Public Staff and incorporates certain feedback received through the stakeholder engagement process. Specifically, Duke explains that it met with the Public Staff on a near-weekly basis from early March through the date of the filing of the Petition to discuss issues related to the proposed rules, to design proposed requirements, and, as needed, to negotiate proposed language to ensure that the proposed rules provide a comprehensive framework for Commission consideration of future CPIRPs that is consistent with applicable laws and adheres to the Commission's directives in the Carbon Plan Order. Petition at 6. In addition to collaborating with the Public Staff, Duke explains that it actively engaged other stakeholders by circulating the proposed rules in advance of scheduled meetings to discuss the proposed rules. Duke states that 23 stakeholders participated in the virtual stakeholder engagement meetings and that several stakeholders provided written feedback to Duke on the proposed rules. Petition at 6-7.

Duke notes that the Public Staff supports the proposed rules and the request for relief as presented in the Petition but reserves the right to supplement its recommendation after review of intervenors' initial comments. Petition at 3.

On May 3, 2023, the Commission issued an Order Establishing Comment Deadlines (Procedural Order), which required that: (1) petitions to intervene be filed on or before Thursday, May 25, 2023; (2) initial comments of the Public Staff and other intervenors be filed on or before Thursday, May 25, 2023; and (3) reply comments of any party be filed on or before Thursday, June 15, 2023.

The intervention and participation of the Public Staff has been recognized pursuant to N.C.G.S. § 62-15(d). Pursuant to N.C.G.S. § 62-20, the North Carolina Attorney General's Office (AGO) filed notice of its intervention in this matter on May 17, 2023. In addition to the Public Staff and the AGO, the Commission permitted the intervention of the following parties: the Carolina Industrial Group for Fair Utility Rates II and the Carolina Industrial Group for Fair Utility Rates III (collectively, CIGFUR); Avangrid Renewables, LLC (Avangrid Renewables); the Carolina Utility Customers Association, Inc. (CUCA); TotalEnergies Renewables USA, LLC (TotalEnergies); the Clean Energy Buyers Association (CEBA); the Fayetteville Public Works Commission (FPWC); the North Carolina Sustainable Energy Association (NCSEA); ElectriCities of North Carolina, Inc. (ElectriCities), North Carolina Eastern Municipal Power Agency, and North Carolina Municipal Power Agency Number 1 (collectively ElectriCities et al.); the North Carolina Electric Membership Corporation (NCEMC); the Carolinas Clean Energy Business Association (CCEBA); and the Southern Alliance for Clean Energy (SACE), the Sierra Club, and the Natural Resources Defense Council (collectively, SACE et al.).

Consistent with the Procedural Order, on May 25, 2023, the following parties filed initial comments or a letter in lieu thereof: the Public Staff, CEBA, NCEMC, CCEBA, CIGFUR, SACE et al., and the AGO. Additionally, the Commission received public comments from New Energy Economics (NEE), which were filed on May 25, 2023.

In its Letter in Lieu of Initial Comments filed on May 25, 2023, the Public Staff expresses its support for the proposed rules and states that the substantive CPIRP filing requirements laid out in proposed R8-60A(d), (e), and (f) are sufficient to allow the Commission, intervenors, and the Public Staff to review and assess the biennial CPIRP filing, and that any additional information not specifically identified in the proposed rule can be obtained through the discovery process.

On June 15, 2023, the following parties filed reply comments: the Public Staff, CEBA, CCEBA, CIGFUR, CUCA, SACE et al., and Duke.

In its Reply Comments, the Public Staff continues to express its support for the proposed rules and indicates that upon review of initial comments of the other parties in this proceeding, it has several recommendations that should be incorporated into the proposed rules.

In its Reply Comments, Duke discusses several revisions to proposed Rule R8-60A, which are responsive to the initial comments filed by intervenors.

The Commission received public comment from Jake Duncan, which was filed in the docket on June 15, 2023. No other person or party filed comments for the Commission's consideration.

Based on the record in this proceeding, for the reasons set forth in greater detail below, the Commission adopts new Commission Rule R8-60A, as reflected in the attached Appendix B, and amends Commission Rules R8-60, R8-67, and R8-71, as reflected in the attached Appendix A. In addition, the Commission makes certain determinations regarding Duke's request to be released from compliance with Legacy IRP Order Directives.

I. RULES R8-60: INTEGRATED RESOURCE PLANNING AND FILINGS; R8-67: RENEWABLE ENERGY AND ENERGY EFFICIENCY PORTFOLIO STANDARD (REPS); R8-71: COMPETITIVE PROCUREMENT OF RENEWABLE ENERGY

In its initial comments, Duke proposes limited revisions to Rules R8-60, R8-67, and R8-71. The proposed revisions to Rule R8-60 clarify that the Rule will now only apply to Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina. Duke Initial Comments at 13. The proposed revisions to Rules R8-67 and R8-71 provide procedures for the filing of annual compliance plans for REPS and CPRE, as these plans were formerly filed in the IRP docket pursuant to Rule R8-60. *Id.*

In both its Letter in Lieu of Initial Comments and in its Reply Comments, the Public Staff expresses support for the proposed revisions to Rules R8-60, R8-67, and R8-71. No other party addresses these proposed rule revisions. Based on the record, the Commission determines that the revisions to Rules R8-60, R8-67, and R8-71, as proposed by Duke in its Initial Comments filed on April 28, 2023, are reasonable and should be approved, as amended by the Commission and attached as Appendix A to this Order.

II. RULE R8-60A: BIENNIAL CARBON PLAN AND INTEGRATED RESOURCE PLANNING FILINGS

As initially proposed by Duke, Rule R8-60A, which would apply only to DEC and DEP, implements the provisions of N.C.G.S. §§ 62-2(a)(3a), 62-110.1, and 62-110.9 in a manner targeted to achieve regulatory efficiency and to provide a consolidated framework for (1) Duke's development of proposed biennial CPIRPs; (2) Commission review and approval of the proposed CPIRPs; and (3) Commission oversight of Duke's ongoing execution of the CPIRPs — both in the near-term and looking out over the longer-term planning horizon towards achieving carbon neutrality.

In its Reply Comments, Duke addresses recommendations made by intervenors for revisions to its proposed Rule R8-60A. While Duke does not agree with every recommendation made, Duke did respond to certain of the recommendations with proposed revisions to the rule. The revised proposed Rule R8-60A was attached to Duke's June 15, 2023 Reply Comments as Attachment 1 (Revised Rule R8-60A). In its Reply Comments, Duke asserts that the Revised Rule R8-60A continues to appropriately and effectively implement the provisions of N.C.G.S. § 62-110.9 with respect to carbon dioxide emission reductions and the provisions of N.C.G.S. §§ 62-2(3a), 62-110.1, and 62-110.9 with respect to least cost integrated resource planning, while being responsive to stakeholder concerns.

After review of the extensive record in this proceeding on proposed Rule R8-60A, the Commission determines that it is reasonable to approve Revised Rule R8-60A, with several specific amendments discussed below in detail. To the extent that a party recommended revisions to the rule that are not approved by or otherwise discussed by the Commission in this Order, the Commission has concluded that such recommendation is not supported by the record.

As provided in the Initial Carbon Plan, the Commission intended that the CPIRP rule primarily be a procedural rule that: (1) identifies the specific elements that the plan must include, at a minimum, to address the long-range need for the expansion of generating facilities that complies with the mandates of N.C.G.S. §§ 62-110.1 and 62-110.9; (2) establishes clear filing deadlines for the biennial CPIRP; and (3) establishes the procedural framework that the Commission will employ in reviewing the CPIRP. Many of the comments and recommendations of the parties in this rulemaking proceeding address substantive, rather than procedural, matters and, for this reason, go beyond the Commission's anticipated scope for this undertaking. However, in effort to provide clarity and guidance to the parties, the Commission will address several of those substantive

matters in this Order. If not otherwise addressed in this Order, such substantive matters may be pursued by the parties in the context of the litigation of the CPIRP.

A. Interim Target - Rule R8-60A(d)(4)

Revised Rule R8-60A(d)(4) requires that biennial CPIRP proposals include several resource portfolios that evaluate all supply-side resources, demand-side resources, energy storage resources, and other technologies available to meet each electric public utility's service obligations during the Base Planning Period (defined in the rule as the 15-year period following the date that the CPIRP is filed) and Carbon Neutrality Planning Horizon (defined in the rule as the period beyond the Base Planning Period). While several parties recommend revisions to this section of the rule, the Commission is persuaded that the recommendations of the AGO be adopted in part.

First, the AGO recommends revising Rule R8-60A(d)(4) to require that at least one resource portfolio achieve 70% carbon dioxide emission reductions by 2030 and that for all resource portfolios that fail to achieve 70% carbon dioxide emission reductions by 2030, the electric public utility provide an explanation as to why the resource portfolio falls within the Commission's discretion to approve. AGO Initial Comments at 1-2. The AGO argues that requiring Duke to model one portfolio that achieves the Interim Target by 2030 will better enable the Commission to weigh the cost implications to ratepayers of meeting the Interim Target by 2030 versus exercising discretion to delay the interim compliance date beyond 2030.

Duke opposes the AGO's recommendation, deeming it unnecessary and stating that "the Commission can address further requirements related to modeling the interim compliance goal in its 2023 and future CPIRP orders, if the Commission determines that it is necessary and in the public interest to do so." Duke Reply Comments at 14. Duke further argues that if "the Commission determines between now and 2030 to extend achievement of the interim emissions reduction target beyond 2030 pursuant to the discretion granted under HB 951, the Companies should not be required to continue modeling a portfolio that the Commission has determined cannot reasonably be pursued." *Id.* at 14-15.

The Commission agrees that the ability to compare cost and execution risk implications of achieving the Interim Target by 2030 versus delaying the achievement date consistent with the discretionary provisions of N.C.G.S. § 62-110.9 is critical to the Commission's decision-making process. Accordingly, the Commission finds it appropriate to modify Revised Rule R8-60A(d)(4) to include the following provision: "Further, each CPIRP filed prior to 2030 shall include at least one resource portfolio that achieves the G.S. 62-110.9-mandated 70% reduction in carbon dioxide emissions by 2030."

Second, the AGO recommends that the Commission require that the details called for in proposed Rule R8-60A(d)(4) are compared for each year of the Base Planning Period and Carbon Neutrality Planning Horizon in a table demonstrating the information in common years. The AGO states that its recommendation is responsive to concerns

expressed by intervenors regarding how various resource portfolios were compared by Duke in its initial Carbon Plan proposal. There, Duke presented the various portfolios with a comparison to an Interim Compliance Year that was different for each portfolio. The AGO contends that this “apples to oranges” approach makes it difficult to compare the impact of selecting a given portfolio. AGO Initial Comments at 3-4.

Duke objects to the AGO’s recommendation, arguing that it would be “unreasonably voluminous and burdensome.” Duke Reply Comments at 19. More particularly, Duke explains:

In the 2022 Carbon Plan proceeding, Tables E-61 through E-68 provided the data now requested by AGO for a select number of years, 2024-2036, which generally aligned with the Base Planning Period. Similar data to the 2022 Carbon Plan will be compiled for the 2023 CPIRP proceeding and presented for each portfolio. Moreover, the substantially more voluminous data requested by the AGO will be made available as part of the modeling input and output data files shared with the Public Staff and intervenors at the time of filing pursuant to Proposed Rule R8-60A(e)(1). To the extent the AGO or other intervenors require tables presenting further information beyond the targeted years that will be provided with the completed CPIRP, they are free to develop such tables using the modeling data provided or issue data requests seeking data for each year of the Base Planning Period and Carbon Neutrality Planning Horizon.

Duke Reply Comments at 19.

The Commission acknowledges that the tables requested by the AGO, organized on a yearly basis through the Carbon Neutrality Planning Horizon, will be time-intensive to produce and also notes the uncertainty that exists as the planning horizon stretches out in time. The Commission further notes, however, that the information requested by the AGO was provided by Duke in the 2022 Carbon Plan proceeding for a 12-year period, which aligns with, but is not exactly, the Base Planning Period. For these reasons, the Commission declines to adopt the AGO’s recommendation to provide this information for the full Carbon Neutrality Planning Horizon and declines to include this provision in the rule. However, the Commission directs Duke to provide tables including the data requested by the AGO for the Base Planning Period in discovery during the 2023-2024 CPIRP proceeding.

B. Near-Term Action Plans - R8-60A(d)(8)

Revised Rule R8-60A(d)(8) requires Duke to include in the CPIRP a near-term action plan identifying specific supply-side and demand-side development, procurement, and retirement activities, including upgrades to the transmission system necessary to interconnect new supply-side resources over the near-term period. While several parties recommend revisions to this section of the rule, the Commission is persuaded that only the recommendation of the AGO should be adopted.

The AGO recommends that the Commission require that the near-term action plan identify whether it is sufficient to support all of the resource portfolios identified pursuant to subsection (d)(4) by inserting the following italicized language into Rule R8-60A(d)(8):

Execution. — Each updated CPIRP shall include a near-term action plan that the electric public utilities propose to execute over the near-term identifying specific supply-side and demand-side development, procurement, and retirement activities, including upgrades to the transmission system necessary to interconnect new supply-side resources. *The proposed near-term action plan should identify whether it is sufficient to support all of the resource portfolios identified pursuant subsection (d)(4). If the proposed near-term action is in not sufficient to support any of the identified resource portfolios, the CPIRP shall identify any additional activities that would be necessary.* The CPIRP should also identify longer-term resource planning risks, strategies, or other considerations that the electric public utilities are monitoring that could impact achieving the State’s carbon reduction goals in a manner that complies with the requirements set forth in G.S. 62-110.9.

AGO Initial Comments, Exhibit 1. In support of its recommendation, the AGO states that the revision will allow the Commission to more readily evaluate the link between the proposed near-term action plan and the resource portfolios. The AGO notes: “In the initial Carbon Plan proceeding, much time was spent establishing whether and to what extent the proposed near-term actions supported the proposed resource portfolios. A more explicit link would help avoid or minimize those discussions.” *Id.* at 4.

The Commission agrees that the AGO’s proposed additional language will clarify the impact of recommended near-term actions on Duke’s execution of the various resource portfolios. Accordingly, the Commission adopts the AGO’s proposed additional language to this effect.

C. Out-of-Model Steps - Rule R8-60A(e)(1)

The Public Staff recommends the following revision to Rule R8-60A(e)(1), noted in italics:

By September 1, 2023, and every two years thereafter, the electric public utilities subject to this rule shall file with the Commission their proposed CPIRP, together with all information required by subsection (f) of this rule. This CPIRP shall propose resources to be selected and a near-term action plan to be approved by the Commission for execution prior to Commission approval of the next succeeding CPIRP. Contemporaneous with filing the CPIRP, the electric public utilities must also make available complete CPIRP modeling input and output data files, *as well as their methodology underlying the use of all modeling software and process steps utilized in the*

CPIRP, to the Public Staff and intervenors, subject to appropriate confidentiality protections.

Public Staff Reply Comments at 9. The Public Staff explains that the revision is intended to address the issue of out-of-model steps, which the Public Staff contends “made it harder for the Public Staff and other intervenors to validate both inputs and output calculations for present value of revenue requirements.” *Id.* at 8. The Public Staff argues that

[w]hile it would be possible for parties to request this information in discovery, the Public Staff’s experience in the 2022 Carbon Plan proceeding highlighted the fact that these out-of-model analyses and steps are not always readily apparent. Requiring Duke to provide this information upon filing and in conjunction with the complete modeling input and output data files would increase transparency, facilitate timely review of these methodologies and assumptions, allow the Public Staff and intervenors to validate the modeling inputs and results filed by Duke in a timely manner, and provide for a more efficient and productive proceeding.

Id. at 8-9.

The Commission agrees that the Public Staff’s recommended additional language is appropriate and will revise Rule R8-60A(e)(1) accordingly.

D. Transmission System Planning - Rule R8-60A(f)(6)(i)

Revised Rule R8-60A(f) expands on and updates prior IRP filing requirements set forth in current Rule R8-60(f) to incorporate new concepts from the Carbon Plan Statute as well as certain directives and required analyses from prior IRP orders that should continue to be addressed going forward. Revised Rule R8-60A(f)(6) addresses transmission system planning and facilities and identifies transmission-related (and non-wires alternatives) information that must be included in the *CPIRP*. Certain parties propose revisions to this specific section of the rule, which Duke argues are unnecessary, beyond the scope of the *CPIRP* proceeding, and, in some cases, outside of the Commission’s jurisdiction. Duke Reply Comments at 35.

Specifically, NCSEA and SACE et al. argue that the *CPIRP* should “rely on proactive, scenario-based, multi-value portfolios of transmission expansion projects” and that the *CPIRP* should inform future transmission planning efforts. The Public Staff indicates that while it agrees that Duke should be exploring multi-value projects through its transmission planning process, it disagrees with SACE et al. that the rule must reflect this level of granularity. The Public Staff, however, agrees that the *CPIRP* should inform Duke’s transmission planning efforts and that it would be helpful for the utilities to apprise the Commission and parties to the *CPIRP* proceeding of how prior *CPIRP* portfolios have

influenced transmission planning efforts. To this end, the Public Staff proposes inserting the following italicized language into this section of the proposed rule:

(i) Transmission System Planning - The electric public utility shall discuss the adequacy of its transmission system and identified future transmission needs (100 kV and above). With respect to future needs, the electric public utility shall include an overview of the utility's local and regional transmission planning process *and a discussion of how the most recently approved CPIRP was incorporated into the utility's transmission planning processes*, and discuss identified needs as well as planned transmission lines and facilities appearing in its most recent local transmission planning report that, as identified in that report, could reasonably be placed into service during the Base Planning Period.

The Commission agrees that the Public Staff's recommended additional language is appropriate and will revise Rule R8-60A(f)(6)(i) accordingly.

E. Stakeholder Engagement - Rules R8-60A(f)(12) and R8-60A(h)

Revised Rule R8-60A(h) provides that each utility filing a CPIRP must provide notice to the Commission of its plans for engaging with interested parties at least 200 days in advance of filing its planned CPIRP.

Both SACE et al. and the AGO advocate for the inclusion of more specific stakeholder engagement requirements in the rule. The AGO proposes amending the rule to require at least four meetings and the identification of specific discussion topics. SACE et al. proposes a number of revisions, including that Duke: (1) provide notice of its proposed stakeholder process at least 230 days before the filing; (2) commence the stakeholder process at least 200 days before the filing; (3) conclude the stakeholder process at least 30 days before the filing; (4) develop proposed modeling inputs with stakeholders; (5) make final modeling inputs publicly available as soon as possible; (6) ensure that stakeholders can replicate any final outputs; (7) file a report with the Commission explaining, among other things, how the Companies incorporated stakeholder input into their CPIRP; and (8) file a report with the Commission that explains in detail Duke's efforts to engage with stakeholders, and specifically with frontline communities, lists and describes all opportunities for public participation before and after the development of the plan, and summarizes and explains how Duke incorporated input from stakeholders. SACE et al. Initial Comments at 12-13.

The AGO recommends that the rule require at least four stakeholder meetings that start no more than six months prior to the filing of the CPIRP. AGO Initial Comments at 5.

NEE also argues that the rule make clear that the goal of the stakeholder process is to determine areas of agreement and disagreement in an attempt to make any CPIRP hearing more efficient. In addition, NEE advocates that the rule require the utility to compile a list of interested stakeholders and to electronically serve monthly reports due

the first week of each month on stakeholders to provide updates on the process, including but not limited to agreements among stakeholders, decisions to disagree, and outstanding issues. In addition, NEE advocates that during stakeholder engagement, the utility should be required to provide information to stakeholders, including but not limited to the following: (1) information used in modeling resource needs and net present value; (2) information regarding any draft all-source request for proposals (RFP); (3) draft standard contracts; (4) draft bid selection criteria; (5) timeline between bids and contracts; and (6) the process for selecting an independent evaluator, if any. Like SACE et al., NEE advocates that the utility be required to report to the Commission on the stakeholder recommendations accepted and rejected.

The Public Staff recommends revising the rule to clarify and define the stakeholder process with the addition of the following italicized language:

- (h) Each electric public utility individually or jointly shall provide notice to the Commission of its plans for engaging with interested parties at least 200 days in advance of its planned biennial CPIRP. *The notice to the Commission should provide, at a minimum, information on how the utilities:*
 - (1) Determined the timing, frequency, and location of stakeholder meetings, as well as whether to hold meetings virtually;*
 - (2) Selected facilitators for the meetings;*
 - (3) Notified stakeholders about the meetings; and*
 - (4) Planned the structure and content of the meetings.*

Public Staff Reply Comments at 11.

Duke opposes the recommended revisions regarding stakeholder engagement, arguing that its proposed rule incorporates the appropriate level of flexibility required for “robust” stakeholder engagement and that the cost of additional requirements must be weighed against the potential benefits. Duke Reply Comments at 44-45.

The Carbon Plan Statute requires that the determinations made by the Commission be informed by stakeholder input. See N.C.G.S. § 62-110.9(1), (4). The objective of a stakeholder process, in this context, is to build consensus and to promote judicial economy by enabling Duke to receive and incorporate stakeholder feedback prior to filing the proposed CPIRP, to identify areas for potential settlements, and to facilitate stakeholder understanding of the Companies’ positions. However, the Commission is concerned that the stakeholder process has the potential to evolve into pre-litigation, which undermines the goal of consensus building, and that it has the potential to cost Duke, and thus ultimately the ratepayers, more than any benefits it provides when the information sharing and consensus building becomes adversarial. The Commission expects Duke and particularly the Public Staff to be vigilant as to whether the stakeholder process meets the Commission’s objectives. While the Commission is cognizant of the fact that Duke will receive significant input from stakeholders during the engagement process, the Commission is receptive to the recommendation that the final stakeholder

engagement report, required by Revised Rule R8-60A(f)(12), identifies those stakeholder recommendations that are accepted by Duke. Providing this information to the Commission will provide the Commission with some clarity on the efficacy of the stakeholder process. For these reasons, the Commission approves the recommended revisions of the Public Staff to Rule R8-60A(h) and will revise Rule R8-60A(f)(12) to reflect that the final stakeholder engagement report identify stakeholder input that has been incorporated.

F. Regional Markets

CEBA recommends that the Commission require Duke to include information on (1) the costs and benefits of participating in the Southeast Energy Exchange Market (SEEM); and (2) whether participation in a regional transmission entity (RTO), including the PJM Interconnection LLC (PJM), independent system operator (ISO), or energy imbalance market (EIM) could result in lower overall costs. In support of its proposal, CEBA contends:

It is impossible to be certain that a plan is truly least cost without requiring that the Companies study and demonstrate both the savings provided by . . . SEEM . . . and that which could be gained from other regional coordination. Requiring the companies to study and model their CPIRP [as] if they were full participants in an RTO/ISO or an Energy Imbalance Market provides further insight into the true least cost pathway by comparison.

CEBA Initial Comments at 4. CCEBA further argues that, at a minimum, the Commission should require Duke to model participation in PJM.

Duke opposes CEBA's recommendation, noting that consideration of Duke's participation in regional markets is not required by N.C.G.S. § 62-110.9 and that participation in an RTO/ISO or EIM "would likely require state and/or federal legislation to effectively implement." Duke Reply Comments at 17. Duke contends that absent such legislative direction, modeling participation in a regional market is unwarranted.

Duke further responds that Revised Rule R8-60A(f)(7) requires that Duke

discuss and/or provide any applicable studies addressing how utility relationships and system interconnections are modeled in the CPIRP including how relevant planning and operations functions influence modeling, such as modeled balancing areas and interconnections, joint dispatch agreements, energy exchange markets, and other future operating efficiencies planned by the electric public utility during the Base Planning Period.

Duke Reply Comments at 18. Duke argues that "[t]his planning framework appropriately focuses on the 'real world' that the Companies are planning and operating in today, while being accommodative of any future changes." *Id.*

With regard to SEEM, Duke explains that “SEEM is a non-firm energy exchange market, which seeks to optimize available generation and transmission capacity with SEEM participants to execute 15-minute period non-firm bilateral energy transactions through an automated platform.” *Id.* at 18. Duke notes that its “IRP modeling does not have the ability to capture the 15-minute granularity of potential SEEM transactions over the long-term planning period.” *Id.* Further, Duke contends that it should not plan with any certainty for the availability of non-firm energy, and that as the CPIRP modeling is intended “to achieve long-term integrated resource planning, it is impracticable, unnecessary, and beyond the scope of the CPIRP to include reporting on the costs and benefits of participation in SEEM for each portfolio as recommended by CEBA.” *Id.* at 18-19.

The Commission agrees with Duke that Revised Rule R8-60A(f)(7) adequately addresses any potential impacts of participation in a wholesale market at this time. Requiring Duke to go beyond this level of analysis and run its models as if it were a full participant in an RTO/ISO, as recommended by CEBA, would result in an unnecessary expenditure of resources, given the absence of legislation directing Duke to do so or otherwise directing Duke’s participation in an RTO/ISO.

G. Procurement Strategies

CEBA suggests that the Commission require Duke to include elements in the final plan that enhance competitive procurement. CEBA argues that to fully accomplish the mandate of least cost planning, the Commission must require Duke to fully embrace competitive procurement, which, CEBA argues can be accomplished by issuing technology and resource neutral RFPs for new capacity additions, utilizing an independent evaluator to develop capacity RFPs and oversee competitive solicitation and procurement to ensure non-incumbent developers are on level footing, and establishing robust Commission oversight and stakeholder engagement processes within competitive procurements. CEBA Initial Comments at 6. SACE et al. make a similar recommendation. SACE et al. Initial Comments at 17. NEE proposes revisions to Rule R8-60A that mirror the type of procurement for which CEBA advocates, which would bifurcate the CPIRP process into two phases to incorporate an all-source procurement, with the first phase involving development of the CPIRP and the second phase involving the development of an RFP and the solicitation. NEE proposes that the all-source procurement be applied to Duke-owned generation assets to allow third-party developers to compete with Duke for development of those assets.

Duke argues that all-source procurement is at odds with the statutory and regulatory framework in North Carolina. Duke Reply Comments at 53. Duke focuses on the fact that the two-phase process advocated for by NEE would be difficult to accomplish in North Carolina’s statutorily mandated two-year CPIRP cycle. Duke also points out that an all-source procurement would conflict with the generation asset ownership requirements set forth in the Carbon Plan Statute. Thus, Duke concludes that it seems likely that action by the General Assembly would be needed to lawfully implement all-source procurement.

The Commission concludes that this rulemaking docket is not the appropriate place to develop a record and take action on this issue.

H. Procedure and Burden of Proof

The AGO recommends in its initial comments that the Commission alter the procedural schedule set forth in the Initial Carbon Plan to allow the opportunity for all interested parties to file rebuttal testimony. AGO Initial Comments at 6. The AGO argues that the electric utility carries the burden of proof in a general rate case, but the electric utility does not carry the burden of proof in a CPIRP proceeding and that an “asymmetrical opportunity” to provide rebuttal testimony in a CPIRP proceeding is unwarranted. AGO Initial Comments at 6. The Public Staff agrees with the AGO that the procedural schedule in Rule R8-60A should allow for all parties — the electric utility, intervenors, and the Public Staff — to file rebuttal testimony. The Public Staff agrees that Duke does not bear the burden of proof in a CPIRP proceeding, and, therefore, should not be afforded the disproportionate advantage of being the only party to rebut testimony. Public Staff Reply Comments at 5. The Public Staff also argues that the extended timeline of approximately 15 months for future CPIRP proceedings, as opposed to the truncated timeline in the initial Carbon Plan proceeding, provides a crucial opportunity for all parties to respond to the testimony of any other party, and, importantly, alternative CIPRPs proposed by other parties. Public Staff Reply Comments at 5.

Duke does not agree with the AGO’s recommendation to deviate from the procedural schedule set forth in the Initial Carbon Plan and argues that irrespective of the issue of burden of proof, Duke is the sole entity with the obligation to provide reliable service to customers. As such, Duke argues that it should be given the opportunity to have the last word in rebuttal testimony as is the case in all other litigated proceedings. Duke Reply Comments at 47-48.

The Initial Carbon Plan made clear that the Commission intends to employ full, formal expert witness hearing procedures for CPIRP review going forward. This is a clear departure from the procedures historically employed for the IRP, which as set forth in Rule R8-60(k), included an opportunity for the Public Staff or other intervenors to file an integrated resource plan or reports of their own or to file an evaluation of or comments on the plans filed by the utilities. Rule R8-60(k) allows all parties to file reply comments within 60 days after the filing of initial comments. Rule R8-60(k) makes clear that the Commission, in its discretion, may schedule a hearing to address issues raised by the parties, but it does not mandate such a hearing. The Initial Carbon Plan, however, established a process for the CPIRP that involves an expert witness hearing and the prefiling of expert witness testimony by the Public Staff and other intervenors as well as the prefiling of rebuttal testimony by Duke. Thus, whereas the procedure used historically for the IRP involved rounds of comments, and a hearing only if deemed necessary by the Commission, the procedure to be used in the context of the CPIRP to develop a record will be a full, formal evidentiary hearing.

Typically, in proceedings in which the Commission schedules an expert witness hearing, the party with the burden of proof is given the opportunity to prefile rebuttal testimony and to have the final opportunity at the hearing to proffer or elicit evidence. In fact, in the last IRP proceeding in which an expert witness hearing was held, the Commission's scheduling order followed this practice. Order Scheduling Hearings on 2009 Integrated Resource Plans and REPS Compliance Plans and Consolidating Dockets for Decision, *Investigation of Integrated Resource Planning in North Carolina 2008/2009*, No. E-100, Subs 118 and 124 (N.C.U.C. Oct. 19, 2009).

Chapter 62 of the North Carolina General Statutes addresses the burden of proof in proceedings before the Commission. Specifically, N.C.G.S. § 62-75 provides:

Except as otherwise limited in this Chapter, in all proceedings instituted by the Commission for the purpose of investigating any rate, service, classification, rule, regulation or practice, the burden of proof shall be upon the public utility whose rate, service, classification, rule, regulation or practice is under investigation to show that the same is just and reasonable. In all other proceedings the burden of proof shall be upon the complainant.

The Carbon Plan Statute is silent on the issue of the burden of proof. N.C.G.S. § 62-110.9. The statute does require the Commission "to take all reasonable steps to achieve" specific reductions in emissions of carbon dioxide from certain electric public utilities. Further, the statute requires the Commission to: (1) "develop a plan with the electric public utilities, including stakeholder input, for the utilities to achieve" the carbon dioxide emission reductions; (2) "[c]omply with current law and practice with respect to the least cost planning for generation[;]" (3) "[e]nsure any generation and resource changes maintain or improve upon the adequacy and reliability of the existing grid[;]" and (4) "[r]etain discretion to determine optimal timing and generation and resource-mix to achieve the least cost path to compliance[.]" Although the directives included in the Carbon Plan Statute are aimed at the Commission, as opposed to the utility, this is not uncommon in the context of Chapter 62. For example, N.C.G.S. § 62-110.1(c), the Commission's authority for the IRP process, requires the Commission to "develop, publicize and keep current an analysis of the long-range needs for expansion of facilities for the generation of electricity in North Carolina [and in doing so] shall confer and consult with the public utilities" As illustrated by this example, other sections of Chapter 62 direct action on the part of the Commission, as the Carbon Plan Statute does.

Specifically with respect to IRPs, the Commission has stated:

The IRPs are first and foremost planning tools. The IRP statute, N.C. Gen. Stat. § 62-110.1(c), establishes a planning process that is an exercise of the Commission's legislative function, as opposed to an exercise of the Commission's judicial function. In *State ex rel. Utilities Commission v. North Carolina Electric Membership Corp.*, 105 N.C. App. 136, 412 S.E.2d 166 (1992), addressing the character of proceedings relating to utilities' integrated resource plans, the Court of Appeals, stated: ". . . [W]e believe

that the least-cost planning proceeding should bear a much closer resemblance to a legislative hearing, wherein a legislative committee gathers facts and opinions so that informed decisions may be made at a later time.” *Id.* at 144, 412 S.E.2d at 170.

Order Accepting Integrated Resource Plans, REPS and CPRE Program Plans with Conditions, and Providing Further Direction for Future Planning, *2020 Biennial Integrated Resource Plans and Related 2020 REPS Compliance Plans*, No. E-100, Sub 165, at 3-4 (N.C.U.C. Nov. 19, 2021).

Even though the IRP proceedings are largely quasi-legislative, the Commission has historically considered the utility to have the burden of proof in IRP proceedings. The statute and Rule R8-60 contemplate that the utilities will file with the Commission and defend their then-current integrated resource plans. N.C.G.S. § 62-110.1(c); Rule R8-60(h). Review of the Commission’s final orders in IRP dockets reveals that the Commission’s practice of accepting plans as being “reasonable for planning purposes,” which is consistent with the burden of proof articulated in N.C.G.S. § 62-75. Finally, as pointed out above, when the Commission has initiated formal evidentiary proceedings in IRP dockets, the utility, and not all parties, is given the opportunity for rebuttal.

In light of all of the foregoing, the Commission concludes that while the Carbon Plan Statute directs the Commission to take certain action, the burden of proof ultimately lies with the utility, consistent with N.C.G.S. § 62-75. For this reason, the Commission determines that the procedures established in Rule R8-60A(g) are consistent with the Commission’s direction in the Initial Carbon Plan and are consistent with N.C.G.S. § 62-75. Further, the Commission concludes that the procedures established by the rule will allow for the development of a robust and thorough record on which the Commission may act. The AGO argues that allowing all parties the opportunity to file rebuttal testimony, in which they may critique or comment on the positions of other parties, will lead to a more developed record, which would in turn aid judicial economy by highlighting areas of agreement among the parties. The Commission is not persuaded by the AGO’s argument that allowing all parties the opportunity to file rebuttal testimony will lead to judicial economy. With respect to the Public Staff’s argument that the extended timeline of approximately 15 months for future CPIRP proceedings, as opposed to the truncated timeline in the initial Carbon Plan proceeding, provides time for all parties to respond to the testimony of any other party, the Commission concludes that the additional time provided by the extended timeline will allow for the setting of procedural schedules that afford the intervenors more time to engage in discovery subsequent to Duke’s initial filing and to prepare and develop their own plans or analyses of Duke’s plan.

III. DUKE REQUEST TO BE RELEASED FROM LEGACY IRP ORDER DIRECTIVES

Duke requests that the Commission release it from compliance with resource planning directives contained in IRP orders issued before the passage of the Carbon Plan Statute (Legacy IRP Order Directives). Petition at 2-3. Duke explains that Table N-3 to

DEC's 2020 IRP and Table O-3 to DEP's 2020 IRPs filed in Docket No. E100, Sub 165 set forth the Legacy IRP Order Directives. Duke Initial Comments at 14 n.19. Duke asserts that many of the Legacy IRP Order Directives have been superseded by the enactment of the Carbon Plan Statute, such that continued compliance with these prior directives is no longer justified as part of Duke's ongoing resource planning process. In addition, Duke explains that for purposes of future proposed CPIRPs, Duke worked with the Public Staff to develop proposed Rule R8-60A to comprehensively describe resource planning obligations and consolidate planning requirements into a single source document, which incorporates certain of the Legacy IRP Order Directives that should continue to inform CPIRP development. Duke's Initial Comments at 14. The Public Staff supports this request (as noted in Petition at 3) and does not otherwise modify its support in its Reply Comments.

SACE et al. take issue with Duke's request and recommend that the Commission adopt a final rule that incorporates all of the Commission's past requirements, unless the requirements are clearly superseded by the Carbon Plan Statute or otherwise rendered duplicative or unnecessary. SACE et al. Initial Comments at 1-2. SACE et al. characterize the past requirements as the result of hard work and experience gained over a decade of IRP proceedings and Duke's request as a request that the "Commission release it from all of the planning requirements that the Commission established prior to the passage of H951, in conjunction with approval of its proposed Rule R8-60A." SACE et al. Initial Comments at 2. In addition, SACE et al. assert that several of the Legacy IRP Order Directives are not covered by Duke's proposed rule, including: (1) obligations related to modeling a portfolio that shows the earliest practicable date for the retirement of coal units; (2) obligations related to studies underlying resource adequacy and the reserve margin; (3) obligations related to alternative supply side resources, including purchased power contracts and DSM/EE programs; (4) the obligation to include a copy of the most recently completed FERC Form 715; (5) reporting obligations related to changes in energy and capacity savings derived from DSM/EE programs; and (6) the obligation to consider additional resource scenarios that include larger amounts of renewable energy resources similar to Dominion North Carolina Power's Renewable Plan.

At the outset, the Commission does not agree with SACE et al.'s characterization of Duke's request as one to release it from all planning requirements that the Commission had established prior to enactment of the Carbon Plan Statute. Rather, the Commission concludes that the proposed rule incorporates many of those requirements and that others have been made obsolete. The Commission agrees with Duke that the adoption of this new, comprehensive rule governing the development of future CPIRPs and providing for robust Commission review through biennial evidentiary proceedings reestablishes resource planning requirements for Duke. The Commission concludes that many of the Legacy IRP Order Directives, or the intent thereof, are incorporated into the proposed rule. To the extent that a Legacy IRP Order Directive is not incorporated into the rule, the Commission concludes, at this time, that such directive has been made obsolete by the new statutory planning paradigm or is no longer necessary to ensure the

Commission's thorough review of a CPIRP. For these reasons, the Commission grants Duke's request to release it from compliance with the Legacy IRP Order Directives.

IV. APPLICABILITY TO 2023-2024 CPIRP INITIAL FILING

As stated in its Initial Comments, Duke's development of its 2023-2024 CPIRP was already underway and would continue at the same time as the rulemaking in this proceeding in order to meet the Commission's directive in the Initial Carbon Plan to file its CPIRP by September 1, 2023. Duke Initial Comments at 16. To meet this deadline, Duke states that it developed its CPIRP in conformity with its proposed rule. *Id.*

The Commission acknowledges that Duke filed its 2023-2024 CPIRP on August 17, 2023, in Docket No. E-100, Sub 190, before the Commission issued its final order in this proceeding. Due to this timing issue, the Commission will deem Duke's 2023-2024 CPIRP filing of August 17, 2023, to be in compliance with subsection (f) of Rule R8-60A as adopted by this Order. The remaining provisions of Rule R8-60A will apply to the 2023-2024 CPIRP proceeding.

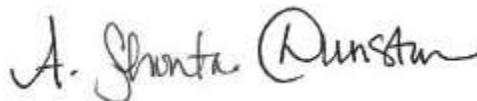
IT IS, THEREFORE, ORDERED as follows:

1. That Commission Rules R8-60, R8-67, and R8-71, as amended and attached as Appendix A, are approved and effective as of the date of this Order;
2. That Commission Rule R8-60A, as attached as Appendix B, is approved and effective as of the date of this Order; and
3. That Duke is released from compliance with the Legacy IRP Order Directives.

ISSUED BY ORDER OF THE COMMISSION.

This the 20th day of November, 2023

NORTH CAROLINA UTILITIES COMMISSION

A handwritten signature in dark ink, appearing to read "A. Shonta Dunston". The signature is fluid and cursive, with the first name "A." and last name "Dunston" clearly distinguishable.

A. Shonta Dunston, Chief Clerk

Rule R8-60. INTEGRATED RESOURCE PLANNING AND FILINGS.

(a) Purpose. — The purpose of this rule is to implement the provisions of G.S. 62-2(3a) and G.S. 62-110.1 with respect to least cost integrated resource ~~planning by the utilities~~ planning by a public utility furnishing electric service in North Carolina that is not designed as an “electric public utility” under G.S. 62-110.9.

(b) Applicability. — This rule is applicable to ~~Duke Energy Progress, Inc.; Duke Energy Carolinas, LLC; and Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina Power.~~

...

Rule R8-67. RENEWABLE ENERGY AND ENERGY EFFICIENCY PORTFOLIO STANDARD (REPS).

...

(b) REPS compliance plan.

...

(2) Each electric power supplier shall file in a docket to be established by the Commission, its REPS compliance plan ~~with the Commission~~ on or before September 1 of each year.

(3) ~~Any electric power supplier subject to Rule R8-60 shall file its REPS compliance plan as part of its integrated resource plan filing, and the REPS compliance plan will be reviewed and approved pursuant to Rule R8-60. Approval of the REPS compliance plan as part of the integrated resource plan shall not constitute an approval of the recovery of costs associated with REPS compliance or a determination that the electric power supplier has complied with G.S. 62 133.8(b), (c), (d), (e), and (f).~~

(4) An REPS compliance plan filed by an electric power supplier not subject to Rule R8-60 or Rule R8-60A shall be for information only.

...

Rule R8-71. COMPETITIVE PROCUREMENT OF RENEWABLE ENERGY.

(g) CPRE Program Plan

- (1) Each electric public utility shall file in a docket to be established by the Commission, its initial CPRE Program plan with the Commission at the time initial CPRE Program Guidelines are filed under subsection (c) and thereafter shall be filed on or before September 1 of each year. ~~The electric public utility may file its CPRE Program plan as part of its future biennial integrated resource plan filings, or update thereto, and the CPRE Program plan filed pursuant to this rule will be reviewed in the same docket as the electric public utility's biennial integrated resource plan or update filing.~~

. . .

Rule R8-60A. BIENNIAL INTEGRATED RESOURCE PLANNING AND CARBON PLAN FILINGS.

- (a) Purpose. — The purpose of this rule is to implement the provisions of G.S. 62-2(a)(3a), 62-110.1 and G.S. 62-110.9. The Carbon Plan constitutes the least cost integrated resource planning process for electric public utilities subject to G.S. 62-110.9 and the process for assessing and updating the integrated resource plan and the Carbon Plan for those utilities are therefore consolidated. The consolidated integrated resource plan and Carbon Plan (CPIRP) shall be reviewed every two years and may be adjusted as necessary in the determination of the Commission and the electric public utilities.
- (b) Applicability. — This rule is applicable to Duke Energy Progress, LLC, and Duke Energy Carolinas, LLC, each of which is an “electric public utility” as defined in G.S. 62-110.9.
- (c) Definitions. — As used in this rule, the following definitions shall apply:
 - (1) “Base Planning Period” shall mean the 15-year period from the start of the year following the date the CPIRP is filed.
 - (2) “Carbon Neutrality Planning Horizon” shall mean the period beyond the Base Planning Horizon that is designed to ensure that the electric public utilities remain on the least cost path towards achieving carbon neutrality (as defined by G.S. 62-110.9(ii)) consistent with the requirements of G.S. 62-110.9.
- (d) Consolidated Carbon Plan and Integrated Resource Plan. — An electric public utility shall develop and keep current a proposed CPIRP to determine the planned generation and resource mix that complies with the requirements set forth in G.S. 62-110.9. The CPIRP shall incorporate, at a minimum, the following:
 - (1) Base Planning for Native Load Requirements and Firm Planning Obligations. — The CPIRP shall include a forecast of native load requirements for the Base Planning Period (including known and quantified load reduction measures taken by wholesale customers pursuant to their FERC-jurisdictional wholesale power contracts) and other system capacity or firm energy obligations extending through at least one summer and one winter peak; supply-side resources (including owned or leased generation capacity and firm purchased power arrangements) and grid edge resources (including demand-side management programs, rate designs, voltage control, customer-sited generation and storage, and energy efficiency) expected to satisfy those loads; and the reserve margin thus produced.

- (2) Long-Term Planning for Carbon Neutrality. — The CPIRP shall include a longer-term planning forecast beyond the Base Planning Period that is designed to ensure that the electric public utilities remain on a path that complies with the provisions set forth in G.S. 62-110.9. For purposes of analyzing resource needs to achieve carbon neutrality beyond the Base Planning Period, the electric public utilities may use simplifying assumptions and analytical approaches recognizing the inherent uncertainty in long-range planning and the ability to make planning adjustments in future updates to the CPIRP.
- (3) Modeling Resource Needs Over Base Planning Period and Carbon Neutrality Planning Horizon. — The CPIRP shall include, at a minimum, a comprehensive analysis of all resource options (demand-side and supply-side) considered by the electric public utilities to serve native load requirements and firm planning obligations during the Base Planning Period and the Carbon Neutrality Planning Horizon in a manner that maintains or improves upon the adequacy and reliability of the existing grid as required by G.S. 62-110.9(3). The electric public utilities shall analyze potential resource options and combinations of resource options to serve its system needs, taking into account the sensitivity of their analysis to variations in future estimates of peak load, energy requirements, and other significant assumptions, including, but not limited to, the risks associated with extreme weather conditions, fuel costs, construction/implementation costs, and the costs of complying with environmental regulations. Additionally, this analysis should account for, as applicable, system operations, compliance with state and federal regulations, and other qualitative factors.
- (4) Resource Portfolios. — Each updated CPIRP shall include several resource portfolios developed with the purpose of fairly evaluating the range of demand-side, supply-side, energy storage, and other technologies available to meet the electric public utilities' service obligations during the Base Planning Period and the Carbon Neutrality Planning Horizon. For each resource portfolio, the electric public utilities shall identify planned resource additions and retirements, projected carbon emission reductions, present value revenue requirements over the Base Planning Period and the Carbon Neutrality Planning Horizon and explain whether, and if so to what extent, the electric public utilities plan to use offsets as allowed by G.S. 62-110.9 as part of the least cost path to achieving carbon neutrality. In addition, each CPIRP filed prior to 2030 shall include at least one resource portfolio that achieves the 70% reduction in carbon dioxide emissions by 2030.
- (5) Evaluation of Resource Options. — As part of its CPIRP process, each electric public utility shall consider and compare a comprehensive set of potential resource options, including both demand-side and supply-side

options, to determine the least cost combination (on a long-term basis) of resource options for reliably meeting the anticipated needs of its system in achieving the State's authorized carbon reduction goals. The CPIRP should include an assessment of power generation, transmission and distribution, grid modernization, energy storage, energy efficiency measures, demand-side management, and the latest technological breakthroughs to achieve the least cost path consistent with the requirements of G.S. 62-110.9.

- (6) Ensuring Resource Adequacy and Reliability. — Each updated CPIRP shall describe how the proposed CPIRP ensures that generation and resource changes presented in the plan maintain or improve upon the adequacy and reliability of the existing grid. This analysis should address the electric public utilities' assessment of and plans to maintain appropriate planning reserve margins and maintain or improve the resource adequacy of their systems.
- (7) Resource Selection. — Each updated CPIRP shall identify the generation facilities and other resources proposed to be selected by the Commission pursuant to and subject to the requirements of G.S. 62-110.9(2). To the extent resources are selected based upon resource diversity, the electric public utilities shall provide additional support for their decisions based on the costs and benefits of alternatives to achieve the authorized carbon reduction goals and meet the requirements of G.S. 62-110.9.
- (8) Execution. — Each updated CPIRP shall include a near-term action plan that the electric public utilities propose to execute over the near term, identifying specific demand-side and supply-side development, procurement, and retirement activities, including upgrades to the transmission system necessary to interconnect new supply-side resources. The proposed near-term action plan should identify whether it is sufficient to support all of the resource portfolios identified pursuant subsection (d)(4). If the proposed near-term action is not sufficient to support any of the identified resource portfolios, the CPIRP shall identify any additional activities that would be necessary. The CPIRP should also identify longer-term resource planning risks, strategies, or other considerations that the electric public utilities are monitoring that could impact achieving the State's carbon reduction goals in a manner that complies with the requirements set forth in G.S. 62-110.9.

(e) Filings.

- (1) By September 1, 2023, and every two years thereafter, the electric public utilities shall file with the Commission their proposed CPIRP, together with all information required by subsection (f) of this rule. This

CPIRP shall propose resources to be selected and a near-term action plan to be approved by the Commission for execution prior to Commission approval of the next succeeding CPIRP. Contemporaneous with filing the CPIRP, the electric public utilities make available complete CPIRP modeling input and output data files, as well as their method underlying the use of all modeling software and process steps utilized in the CPIRP, to the Public Staff and intervenors, subject to appropriate confidentiality protections.

- (2) Each CPIRP shall include an update on the progress the electric public utilities have made to advance the near-term action plan in the most recently approved CPIRP.
 - (3) If an electric public utility considers certain information in its biennial comprehensive CPIRP to be proprietary, confidential, and within the scope of G.S. 132-1.2, the electric public utility may designate the information as “confidential” and file it under seal.
- (f) Contents of Biennial CPIRP. — The electric public utilities shall include in each updated CPIRP the following:
- (1) Forecasts of Load, and Demand-Side and Supply-Side Resources. — The forecasts filed as part of the CPIRP shall include descriptions of the methods, models, and assumptions used by the electric public utilities to prepare their gross and net peak load in megawatts (MW) and energy sales (MWh) forecasts and the variables used in the models. The forecasts filed by the electric public utilities shall include, at a minimum, the following:
 - (i) The most recent ten-year history and a forecast of customers by each customer class, the most recent ten-year history and a forecast of energy sales (MWh) by each customer class, and the most recent ten-year history and a forecast of the electric public utility’s summer and winter peak load (MW);
 - (ii) A detailed calculation of the impact of grid edge resources on gross load, including comparably quantified and verified information provided by wholesale customers within the electric public utility’s balancing area, and an explanation of why those resources are treated as load modifying or as a resource modeled on the supply side;
 - (iii) The electric public utility’s forecast for at least the Base Planning Period, including peak loads for summer and winter seasons of each year, annual energy forecasts, reserve margins, and load duration curves, with and without projected demand-side or supply-side

resource additions. The forecast shall also indicate the projected effects of grid edge resources on the forecasted annual energy and peak loads on an annual basis for the Base Planning Period, and these effects also may be reported as an equivalent generation capacity impact; and

- (iv) For new technologies that may have significant impacts on the electric public utility's net load forecast, such as sector or process electrification or load modifying technologies, the electric public utility should provide a description of the forecast methodology and projections.
- (2) **Generating Facilities and Energy Storage.** — The electric public utilities shall provide the following data for their owned existing and planned electric generating facilities (including planned additions and retirements, but excluding cogeneration and small power production) and energy storage systems:
- (i) **Existing Generation.** — The electric public utilities shall include a list of existing generation resources in service, with the information specified below for each listed resource. The information shall be provided for the Base Planning Period:
 - a. Type of fuel(s) used by each generating unit;
 - b. Generating unit characteristics (type of unit, *i.e.*, CT, nuclear, etc., summer and winter capacity ratings, in-service date, and planned retirement date, if applicable);
 - c. Location of each existing generating unit;
 - d. A list of generating units for which there are specific plans for life extension, refurbishment, or upgrading. The reporting electric public utility shall also provide the expected (or actual) date the unit is, or is expected to be, removed from service, the general location, the capacity rating upon return to service, the expected return to service date, and a general description of the work to be performed on the unit; and
 - e. Other changes to existing generating units that are expected to increase or decrease generation capacity of the unit in question by an amount that is plus or minus 10%, or 10 MW, whichever is greater.
 - (ii) **Existing Energy Storage.** — The electric public utilities shall include a summary of their existing energy storage in service, with the

information specified below for each technology. The information shall be provided for the Base Planning Period:

- a. Storage technology (pumped storage hydro, battery, etc.); and
 - b. Aggregate power capacity and designed storage duration.
- (iii) Planned Generation. — The electric public utilities shall include a list of planned generation resource additions, the rationale as to why each listed resource addition was selected, and the following for each listed addition:
 - a. Type of fuel(s) used by each generating unit;
 - b. Generating unit characteristics (type of unit, i.e., CT, battery, etc., summer and winter capacity ratings, in-service date, and planned retirement date, if applicable);
 - c. Location of each planned generating unit to the extent such location has been determined; and
 - d. Summaries of the analyses supporting any new generation additions included in the forecast for the Base Planning Period, including its designation as baseload capacity, if applicable.
- (iv) Planned Energy Storage Additions. — The electric public utilities shall include a list of planned energy storage additions, the rationale as to why each listed resource addition was selected, and the following for each listed addition:
 - a. Storage technology (pumped storage hydro, battery, etc.); and
 - b. Aggregate power capacity and designed storage durations.
- (3) Non-Utility Generation. — The electric public utilities shall provide a summary of all non-utility electric generating facilities and energy storage in their service areas, including customer-owned and stand-by generating facilities. This summary shall aggregate capacities by generation type (solar, hydro, biomass, etc.).
- (4) Wholesale Contracts for the Purchase and Sale of Power. —

- (i) The electric public utilities shall include a list of firm wholesale purchased power contracts currently in effect, including the primary fuel type, capacity (including the designation as base, intermediate, or peaking capacity), location, expiration date, treatment of the wholesale resource in CIPRP modeling after expiration, and volume of purchases actually made since the last CIPRP for each contract.
 - (ii) The electric public utilities shall discuss the results of any Request for Proposals (RFP) that the electric public utilities have issued for purchases of solar generation from third parties and for acquisition for utility ownership and, as applicable, RFPs for acquisition, transfer, or engineering, procurement and construction of other selected generation or storage resources since the last CIPRP. This discussion shall include a description of each RFP, the number of entities responding to the RFP, the number of proposals received, the terms of the proposals, and an explanation of why the proposals were accepted or rejected. The discussion shall also address how the results of the most recent RFP completed during the biennial CIPRP period are incorporated into the electric public utilities' analysis of their long-range energy and capacity needs. If any of this information is readily accessible in documents already filed with the Commission, the electric public utilities may incorporate by reference the document or documents in the CIPRP, so long as the electric public utilities provide the docket number and the date of filing.
 - (iii) The electric public utilities shall include a list of the wholesale power sales contracts for the sale of capacity or firm energy for which the electric public utilities have committed to sell power during the Base Planning Period, the identity of each wholesale entity to which the electric public utilities have committed itself to sell power during the planning horizon, the number of MWs on an annual basis for each contract, the length of each contract, and the type of each contract (e.g., native load priority, firm, etc.).
- (5) Demand-Side Management and Energy Efficiency. — The electric public utilities shall include an assessment of the portfolio of existing and future grid edge resources including demand-side management and energy efficiency programs consistent with the most recently filed DSM/EE cost recovery rider filed by the electric public utilities pursuant to Rule R8-69 and G.S. 62-133.9(c). The electric public utilities shall appropriately reflect grid edge resources as either load modifiers or as a resource considered on the supply side based upon the operating characteristics of the resource. For purposes of utility planning, the electric public utilities shall model energy efficiency as a load modifying resource, ensuring its priority in utility planning. The electric public

utilities' modeling of the load modification associated with energy efficiency shall include low, base, and high cases.

(6) Transmission System Planning and Facilities. —

- (i) Transmission System Planning - The electric public utilities shall discuss the adequacy of the transmission system and identified future transmission needs (100 kV and above). With respect to future needs, the electric public utilities shall include an overview of the electric public utilities' local and regional transmission planning process, a discussion of how the most recently approved CIPRP was incorporated into the electric public utilities' transmission planning processes, and discussion of the identified needs, as well as planned transmission lines and facilities, appearing in the most recent local transmission planning report that, as identified in that report, could reasonably be placed into service during the Base Planning Period.
- (ii) Planned Improvements - The electric public utilities shall include a list of planned, new or to be upgraded, transmission lines (100 kV or over) and transformers (low side voltage 100 kV or over) which are under construction or for which there are specific plans to be constructed during the Base Planning Period, including the capacity and voltage levels, location, and schedules for completion and operation.
 - a. The electric public utilities shall describe how applicable planned improvements may enable specific siting of new resources or provide expected and planned impacts to other resource interconnection constraints or operations of the systems.
- (iii) Non-wires alternatives — The electric public utilities shall provide an overall assessment methodology for non-wires alternatives, including a descriptive summary of analysis performed or used by the electric public utilities in the assessment of alternative solutions to transmission constraints that may be more cost-effective, such as locating generation in less constrained areas or strategically locating energy storage resources or the dispatch of distributed energy resources of the wholesale customers located within the electric public utilities' balancing area to the extent the electric public utilities have rights to dispatch, operate, and control such resources in the same manner as the electric public utilities' own resources.

(7) Modeling of System Operations. — The electric public utilities shall provide a discussion of or applicable study addressing how electric public utility relationships and system interconnections are modeled in

the CPIRP including how relevant planning and operation functions influence modeling, such as modeled balancing areas and interconnections, joint dispatch agreements, energy exchange markets, and other future operating efficiencies planned by the electric public utilities during the Base Planning Period.

- (i) The electric public utilities shall also include, as applicable, a discussion of other planning factors influencing CPIRP modeling, such as corporate emission reduction goals or generation resource restrictions, legal or regulatory requirements from other authorities or jurisdictions that materially impact the resource plan, and the impact of these factors on the electric public utilities' long-range resource plans over the Base Planning Period and Carbon Neutrality Planning Horizon, as applicable.
 - (ii) The electric public utilities shall discuss the results that are expected from integrated (generation, transmission and/or distribution) systems planning processes, how integrated systems planning is used in the CPIRP process, and the impact of it and their wholesale customers' distributed energy resources and non-traditional solutions on resource planning and load forecasting.
- (8) Modeling of Generating and Energy Storage Resources. — The electric public utilities shall include an overall modeling framework and methodology for existing and potential generating and storage resources, including a descriptive summary of material assumptions and analysis performed or used by the electric public utilities in the assessment. The electric public utilities shall also provide general information on any changes to the methods and assumptions used in the assessment since the most recently approved CPIRP, including supportive studies impacting assessment and selection of resources.
 - (i) To the extent that an updated unit retirement analysis is conducted as a part of the CPIRP, the electric public utilities shall include a descriptive summary of material assumptions and analysis performed that may impact the retirement date modeled such as transmission requirements or replacement resource needs to enable executable retirement of resources.
- (9) Maintaining or Improving Upon the Adequacy and Reliability of the Existing Grid. — The electric public utilities shall provide a description of, and justification for, the methodology by which the CPIRP will demonstrate that adequacy and reliability of the system will be maintained or improved throughout the Base Planning Period and Carbon Neutrality Planning Horizon. To the extent that the electric public utilities' standards for quantifying that the reliability of the system

has been maintained has changed, the electric public utilities shall discuss the reasons for the changes to these standards, including impacts to resource adequacy studies, effective load carry capability studies, or other applicable reliability studies. The electric public utilities shall also describe coordination efforts with their wholesale customers to utilize their resources to maintain or improve reliability.

- (10) Load, Capacity, and Reserve Tables. — The electric public utilities shall provide a table for a reference portfolio that shows, for both winter and summer peaks, the available capacity, wholesale purchases and sales, capacity from non-utility generation, load (gross and net of grid edge resources), retirements, new capacity additions, and estimated reserve margin for each year of the Base Planning Period.
 - (i) The electric public utilities shall calculate and provide a description of, and justification for, the methodology by which the electric public utilities determine a first year of avoidable capacity need (First Year of Avoidable Capacity).
- (11) Evaluation of Resource Portfolios and Selection of Resources. — The electric public utilities shall provide a description and a summary of the results of their analyses of potential resource options and combinations of resource options (demand-side and supply-side), including relevant information pertaining to portfolio costs (present value of revenue requirements and average retail customer bill impact analyses), operability and reliability, and CO2 emissions. Taking into account the resource portfolios presented in the proposed CPIRP, the electric public utilities shall designate resources for selection by the Commission as the proposed near-term action plan for implementation by the electric public utilities following the Commission's final order on the proposed CPIRP. The near-term action plan required by this Rule should discuss the specific actions the electric public utilities propose to take over the near-term to progress carbon emissions reductions in a least-cost manner, while maintaining or improving reliability of the grid and continue executing least cost planning, including actions to preserve optionality for future potential resources that could help achieve these objectives in future updates to the CPIRP.
- (12) Stakeholder Engagement Report – The electric public utilities shall provide a summary of its stakeholder engagement conducted pursuant to the plan described in section (h).

(g) Procedure for Review.

- (1) At the time the electric public utilities file their proposed CPIRP with the Commission pursuant to subsection (e), the electric public utilities shall

also file with the Commission testimony and exhibits of expert witnesses supporting the proposed CPIRP.

- (2) No later than 180 days after the later of either September 1 or the filing of the electric public utilities' CPIRP, the Public Staff and intervenors may file testimony and exhibits of expert witnesses commenting on, critiquing, or giving alternatives to the electric public utilities' proposed CPIRP.
 - (3) No later than 45 days after the filing of intervenor testimony and exhibits, the electric public utilities may file rebuttal testimony and exhibits of its expert witnesses.
 - (4) The Commission shall schedule an expert witness hearing to review the CPIRP proposals beginning on the second Tuesday in May following the electric public utilities' proposed CPIRP filing. The scope of any such hearing may be limited to issues as identified by the Commission. The Commission will also schedule one or more hearings to receive testimony from the public at a time and place of the Commission's designation.
 - (5) The Commission will issue an order adopting the next CPIRP by no later than December 31 of the year after the year in which the proposed CPIRP is filed with the Commission.
- (h) The electric public utilities individually or jointly shall provide notice to the Commission of their plans for engaging with interested parties at least 200 days in advance of its planned biennial CPIRP. The notice to the Commission should provide, at a minimum, information on how the utilities:
- (1) Determined the timing, frequency, and location of stakeholder meetings, as well as whether to hold meetings virtually;
 - (2) Selected facilitators for the meetings;
 - (3) Notified stakeholders about the meetings; and
 - (4) Planned the structure and content of the meetings.