

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. E-100, SUB 165

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of:  
2020 Biennial Integrated Resource Plans and  
Related 2020 REPS Compliance Plans

REPLY COMMENTS OF  
CIGFUR I, II, AND III

NOW COME the Carolina Industrial Group for Fair Utility Rates I (CIGFUR I), the Carolina Industrial Group for Fair Utility Rates II (CIGFUR II), and the Carolina Industrial Group for Fair Utility Rates III (CIGFUR III) (collectively, CIGFUR), pursuant to Rule R8-60(k) of the North Carolina Utilities Commission and the Commission's April 19, 2021 Order Granting Extension of Time, and submit the following reply comments in response to certain initial comments filed in the above-captioned proceeding. CIGFUR respectfully requests that the Commission consider these comments when deciding whether to accept as reasonable for planning purposes the integrated resource plans (IRP) filed in this docket by Duke Energy Carolinas, LLC (DEC), Duke Energy Progress, Inc. (DEP) (collectively, Duke), and Virginia Electric and Power Company d/b/a Dominion Energy North Carolina (DENC) (together with Duke, the Utilities), respectively.

### **Procedural Background**

On May 1, 2020, DENC filed its 2020 IRP and other associated documents. On September 1, 2020, Duke filed its 2020 IRP and other associated documents. By Orders issued in this docket, the Commission has allowed intervention in this proceeding by various interested parties, including an Order issued on October 26, 2020, in which the Commission allowed CIGFUR to intervene as a party to this proceeding. On February 26, 2020, several parties filed initial comments.

### **CIGFUR's Reply Comments**

CIGFUR has reviewed, analyzed, and considered the Utilities' respective IRPs and the initial comments filed by all parties to this proceeding. CIGFUR respectfully requests that the Commission consider the following reply comments of CIGFUR:

#### **I. Background**

CIGFUR acknowledges the policy objectives associated with transitioning away from coal-fired electricity generation toward a cleaner, more renewable energy supply. Many CIGFUR member companies, like the Utilities themselves, have their own carbon reduction and clean

energy goals. CIGFUR likewise recognizes the need to replace generation from coal plants retiring during the current IRP planning period with a different mix of generating resources, in addition to continuing to bring online additional renewable generation.

That said, however, the importance of maintaining reliability of electric service is a paramount concern for CIGFUR's member companies. CIGFUR members operate sophisticated manufacturing and other industrial equipment that is highly sensitive to fluctuations in power quality. Further, CIGFUR members face significant potential economic losses resulting from even relatively slight interruptions in electric service. The Commission has historically carried out its review of IRPs in a manner that balances the need for compliance with environmental and renewable energy mandates and affordability of electric service with maintaining existing levels of power quality and reliability. The Commission's approach has allowed Duke and DENC to achieve good levels of service quality and reliability, and the entire State has benefited through economic development, job creation and retention, and in many other ways because industrial customers like CIGFUR members have been able to locate, maintain, and in some cases expand their presences in North Carolina.

In addition to maintaining current levels of electric service reliability, containing costs also is of the utmost importance to CIGFUR members, particularly in the event that the transition away from coal-fired electricity generation may be mandated by State policy, as opposed to some federal carbon policy with which all states would have to comply equally within the same time frame, thus leveling the playing field and ensuring that North Carolina's electric rates remain competitive as compared to other southeastern states and throughout the country and beyond. Electric utility bills often are one of the top three expense line items each month for manufacturers, and each time there is an electric rate increase in North Carolina, it means our State is less competitive for manufacturers to operate compared to other states or even other countries. To that end, one of CIGFUR's highest priorities is to advocate for an IRP that provides some measure of protection and certainty to customers that what they pay for electricity in North Carolina over the next decade and beyond will not become uncompetitive.

The IRPs filed by DENC and Duke include various planning scenarios to meet each utility's respective resource obligations, environmental goals, and regulatory requirements. The Public Staff commented that overall, the IRPs comply with the Commission's filing requirements and provide sufficient information for planning purposes. As the Public Staff notes in its initial comments, each IRP attempts to find, pursuant to N.C. Gen. Stat. § 62-2(a)(3a), "the *least cost* mix of generation and demand-reduction measures which is achievable, including consideration of appropriate rewards to utilities for efficiency and conservation which decrease utility bills" (emphasis added). CIGFUR contends that, generally speaking, it would be contrary to the Commission's statutory mandates and historical approach to approve for planning purposes a portfolio of resources that either is not least cost, may jeopardize power quality and reliability, or both.

## II. Reply Comments – Duke’s IRPs

CIGFUR emphasizes at the outset that it is difficult, if not impossible, to advocate for or against any of the six IRP portfolios proffered by Duke with so many questions of fact still in dispute. Indeed, many of the underlying inputs and assumptions baked into the models and methodologies used to generate the outputs of Duke’s various IRP portfolios relative to one another likewise are in dispute. Add to this the competing facts and figures proffered by way of the Synapse report filed by NCCEBA, NCSEA, and SACE – including the fact that a second corrected Synapse report was only just filed in these dockets the day before this instant filing was made – and it becomes even more difficult to discern with any relative certainty which of the IRP portfolios is actually “least cost.”

CIGFUR makes the following noteworthy observations with regard to Duke’s IRPs, based upon currently available information contained within the parties’ initial comments in this proceeding:

- Executive Order 80 (EO80) requires that North Carolina greenhouse gas emissions (GHGs) be reduced by 40% compared to 2005 levels by 2025. EO80 also requires the North Carolina Department of Environmental Quality (DEQ) to develop a Clean Energy Plan (CEP). DEQ’s Clean Energy Plan includes a goal to reduce electric sector emissions by 70% by 2030 as compared to 2005 levels, and to attain carbon neutrality by 2050. In addition, Duke announced in 2019 its own corporate goal to reduce its CO2 emissions by 50% by 2030, compared to 2005 levels, and to achieve net-zero by 2050.
- The Public Staff notes in its initial comments that Duke has already reduced GHGs by 41% from 2005 levels, meaning it has already satisfied the reduction in GHGs ordered by Governor Cooper to occur by 2025. In addition, Duke is likewise generally on track to meet the goals set in DEQ’s Clean Energy Plan for a 70% reduction by 2030, as well as on track to satisfy its own corporate goals. The Public Staff further notes that both Portfolios A and B result in carbon reductions between 56% and 59% below 2005 levels by 2030 while providing for the (1) construction of new natural gas generation to meet reliability standards and load growth; (2) use of the most economic retirement dates for existing coal-fired units; and (3) addition of large volumes of new solar generation, solar plus storage, and standalone storage.
- All of Duke’s proposed portfolio scenarios result in increased electric rates to be shouldered by ratepayers. Depending on the scenario, the projected rate increases result from new capacity to satisfy growing demand, as well as capacity expansion plans that are subject to carbon pricing or carbon-free generation that is “forced in” to the model to achieve a certain emissions reduction target. In addition, the costs identified in the IRP do not include costs common to all portfolios, such as Duke’s Grid Improvement Plan, coal ash remediation and beneficiation, or any of the other regulatory requirements that are converging simultaneously to result in unprecedented upward pressure on electric rates.
- CIGFUR II and III note that certain of Duke’s proposed IRP portfolios include use of technology which has not yet been fully developed; for example, Portfolio E relies on small

modular nuclear reactors (SMR). CIGFUR contends that it does not constitute prudent planning to rely on a nascent technology still requiring further research and development. Such plans would increase overall uncertainty, particularly in the later years of the IRP, of electric service reliability and cost, therefore increasing risk to Duke's customers.

- Importantly, the Public Staff notes that Duke's proposed IRP portfolios do not consider the cost of inaction, meaning costs North Carolina ratepayers would be required to pay under a base case scenario if an aggressive carbon policy becomes a reality; for example, the costs of any stranded assets forced to retire early would be borne by ratepayers while those same ratepayers simultaneously also would be paying for replacement generation for such retired assets. CIGFUR II and III believe such analysis and considerations are necessary for a meaningful, potentially more accurate relative cost and risk comparison between the six different portfolio plans advanced by Duke. Because of the sheer number and significance of factual issues in dispute, CIGFUR II and III recommend that the Commission direct Duke to supplement its IRP filing with additional information necessary to more thoroughly evaluate the risks of inaction embedded within each IRP portfolio option.
- CIGFUR II and III generally agree with the argument advanced by the Public Staff that, regardless of which IRP portfolio plan is accepted, maintaining flexibility to respond to an uncertain policy and regulatory environment is critically important. Likewise, CIGFUR II and III agree with the Public Staff that there are risks to ratepayers should Duke commit to any portfolio before the uncertainty about how CO<sub>2</sub> policy at the federal and state levels is resolved. To that end, CIGFUR II and III recommend that the acceptance for planning purposes of any IRP portfolio be conditioned upon how the uncertainty surrounding CO<sub>2</sub> policy may be resolved in the coming months or years.
- The Public Staff believes that the current national political climate, potential state action stemming from recommendations made in the CEP, shifts in public opinion regarding climate change and carbon regulation, and commercial and industrial customers' increased support of green energy all support the expectation that future limits on carbon are more likely than not. CIGFUR agrees.
- The Public Staff notes two areas of concern with Duke's IRPs:
  - Carbon Reduction Goals: The Public Staff has concerns about the large quantity of solar, wind, and battery resources that Duke has included in its carbon policy portfolios absent a regulatory or legislative mandate for same. The Public Staff also has concerns that Duke's anticipated buildout of natural gas in Portfolios A and B could result in the forced early retirement of natural gas assets if federal or state carbon legislation is enacted in the future. In response to the latter point, CIGFUR recommends that the Commission direct Duke to supplement its IRP filing with additional information necessary to enable the parties to more thoroughly evaluate the risks of stranded assets if carbon policy forces the early retirement of natural gas plants. To that end, CIGFUR thinks there is some merit to the argument

advanced by numerous parties that there are certain flaws in Duke’s methodology, which forms the basis for the resulting IRP portfolio outputs. If the methodology is in fact flawed, then so, too, are the resulting outputs. To that end, CIGFUR reiterates its comments contained in the opening paragraph of this section – without an agreed-upon set of facts and figures, or at least agreed-upon assumptions and modeling inputs, it’s impossible for CIGFUR to select which Duke IRP portfolio or portfolios to support.

- Forecasts for Natural Gas Prices: CIGFUR shares the Public Staff’s concerns with Duke’s previous reliance on the Atlantic Coast Pipeline (which has been cancelled) and its current reliance on the Mountain Valley Pipeline (MVP) Southgate pipeline extension, which cannot begin construction until all state and federal permits are approved. CIGFUR also notes that subsequent to the filing of the Public Staff’s initial comments, NC DEQ again denied MVP’s request for a water permit.<sup>1</sup> In addition, CIGFUR notes that subsequent to initial comments being filed in this docket, Colonial Pipeline’s infrastructure fell victim to a cybersecurity hack that temporarily shut down its operations. As of the time of this writing, the full extent of the consequences suffered by CIGFUR member companies as a result of the ransomware attack on Colonial Pipeline remains unknown. Needless to say, these recent developments only further emphasize the importance of the Public Staff’s and CIGFUR’s shared concerns over the natural gas price forecasts relied upon by Duke in its IRP portfolio modeling.
- CIGFUR generally supports the suggestion advocated by the Tech Customers that “[i]n order to fulfill the mandate of obtaining least-cost generation, DEC’s IRP should assess whether third-party owned solar is less expensive than utility-owned solar.” However CIGFUR notes that the Public Staff agrees the Storage ELCC Study found the capacity value to decline over time with third-party owned solar plus storage resources. For that reason, CIGFUR would expect that any such assessment of relative costs of third-party owned solar or solar plus battery storage resources also be analyzed in the context of reliability issues under different dispatch modes. CIGFUR would further support that any such third-party owned solar or solar plus BESS resources be operated in accordance with the dispatch mode that allows full utility control and dispatch, subject to curtailment limitations set forth in any power purchase agreement entered into with an independent power producer.

CIGFUR generally agrees with the Public Staff that, to the extent that Duke must make planning decisions in the near term that require it to follow a particular portfolio, Duke should make reasonable decisions that minimize both cost and risk to ratepayers. For example, a concern noted by the Public Staff related to forecasting natural gas prices demonstrates the need for Duke and the Commission to preserve flexibility considering the MVP Southgate pipeline extension was

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<sup>1</sup> “North Carolina again denies permit for Mountain Valley gas pipe extension,” Reuters (April 30, 2021), available at <https://www.reuters.com/world/us/north-carolina-again-denies-permit-mountain-valley-gas-pipe-extension-2021-04-30/>.

again disapproved, in light of the fact that the proposed Atlantic Coast Pipeline failed to materialize. The approach of maintaining flexibility while requiring Duke to make reasonable near-term planning decisions is consistent with the statutory directives found in Chapter 62 of the North Carolina General Statutes, Commission Rule R8-60, and the Commission's traditional approach to integrated resource planning.

CIGFUR further agrees with the Public Staff that, while all of Duke's proposed scenarios result in increased electric rates, the IRP does not include significant and in some cases unknowable costs, such as Duke's Grid Improvement Plan and requirements for coal ash remediation. CIGFUR believes that these costs are relevant to the Commission's consideration of Duke's IRPs, and that committing Duke to these scenarios lacks statutory support and is contrary to the Commission's historical approach to reviewing IRPs. Third, CIGFUR shares the Public Staff's concerns that Duke has included a large quantity of solar, wind, and battery resources in its carbon policy portfolios without any regulatory or legislative mandate. As noted by the Public Staff, there is risk to Duke's ratepayers if Duke (or the Commission) commits to these scenarios prior to resolving the uncertainty around carbon policy or renewable energy mandates; likewise, CIGFUR believes there is risk to Duke's ratepayers if Duke (or the Commission) commits to any of the IRP portfolios proposed before resolving some of the various material facts in dispute among the parties.

As was noted by the Public Staff and several other intervenors, there remains much uncertainty surrounding the carbon reduction policy issues and how those may – or may not – be resolved in the coming months or years. In the meantime, CIGFUR contends that the Commission's mandate for least-cost integrated resource planning is clear and that this mandate does not include the authority to require or authorize Duke to pursue more aggressive carbon reduction scenarios absent a statutory directive to do so. While these goals, including Duke's own corporate goals, are laudable and generally consistent with the similar sustainability and renewable energy goals of many CIGFUR members, the actions of electric public utilities – and, indeed, the Commission – are constrained by statute. In other words, it is for the Legislature to determine the public policy of the state and, absent contrary legislative direction, N.C. Gen. Stat. §§ 62-2(a)(3a) and 62-110.1 and Commission Rule R8-60 require least-cost integrated resource planning, but just which portfolio plan of the six such plans Duke has offered constitutes the actual *least-cost* option remains up for debate. To that end, CIGFUR reiterates its request that the Commission direct Duke to supplement its IRP filing with additional analysis and revised modeling outputs.

### **III. Reply Comments – DENC's IRPs**

CIGFUR makes the following noteworthy observations with regard to DENC's IRPs, based upon currently available information contained within the parties' initial comments in this proceeding:

- DENC operations in North Carolina are very different from those of Duke. DENC has a small amount of generation and only provides electric service to meet 5% of total electric load in North Carolina, and DENC is part of the PJM regional transmission organization (RTO).

- In April 2020, the Virginia Clean Economy Act (VCEA) became law, requiring DENC to produce 100% of its electricity from renewable sources by 2045. In July 2020, Virginia joined the Regional Greenhouse Gas Initiative (RGGI), a market-based program implemented by several Northeast and Mid-Atlantic states to reduce GHGs. RGGI requires that member states cap CO<sub>2</sub> emissions and buy allowances for any CO<sub>2</sub> that is emitted. The effects of RGGI on DENC's future operations are uncertain and the future establishment of mandatory federal CO<sub>2</sub> compliance could influence the RGGI market.
- DENC has committed to achieve net zero CO<sub>2</sub> and methane emissions by 2050. Unlike Duke, Virginia's membership in RGGI provides for DENC a clear, definitive mandate for CO<sub>2</sub> reduction and increased sources of renewable energy generation.
- DENC's Plan A, which is a least-cost scenario, does not comply with the requirements set forth in the VCEA. DENC's Plan B includes significant development of solar, wind, and energy storage resources, and does comply with the VCEA during the 2021-2045 study period. The Public Staff recommends that the Commission accept DENC's Plan B as reasonable for planning purposes.
- CIGFUR also agrees with the Public Staff that DENC's operations in North Carolina are very different from those of Duke. CIGFUR believes that these differences, such as DENC's small amount of generation in the State, only 5% of DENC's total electric load is attributable to North Carolina customers, and DENC's participation in the PJM regional transmission organization, are differences that have a material impact on DENC's least cost integrated resource planning. Further, as noted by the Public Staff, the enactment of the Virginia Clean Economic Act and Virginia's joining the RGGI, place DENC in a materially different position for least cost integrated resource planning than Duke, because DENC has clear legislative mandates for CO<sub>2</sub> reduction and obtaining electric power from renewable energy resources. Lastly, CIGFUR agrees that DENC's Plan B includes significant development of solar, wind, and energy storage resources, thereby complying with the VCEA during the 2021-2045 study period. For this reason, CIGFUR agrees with the Public Staff's recommendation that the Commission should accept DENC's Plan B as reasonable for planning purposes.

#### IV. CONCLUSION

WHEREFORE, CIGFUR respectfully requests that the Commission consider the foregoing comments when deciding whether to accept, reject, or require more information regarding the 2020 IRPs submitted by Duke and DENC, respectively.

Respectfully submitted, this the 28th day of May, 2021.

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**CERTIFICATE OF SERVICE**

The undersigned attorney for CIGFUR I, II, and III hereby certifies that she served the foregoing Reply Comment of CIGFUR I, II, and III upon the parties of record in this proceeding, as set forth in the service list for this docket maintained by the Chief Clerk of the North Carolina Utilities Commission, by electronic mail.

This the 28th day of May, 2021.

By: /s/ Christina D. Cress  
Christina D. Cress