Mar 15 2022

STATE OF NORTH CAROLINA UTILITIES COMMISSION RALEIGH

DOCKET NO. M-100, SUB 164

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BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Consideration of the Federal Funding Available Under the Infrastructure Investment and Jobs Act

INITIAL COMMENTS OF CIGFUR I, II, & 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 the Commission's February 1, 2022 Order Allowing Comments Regarding Federal Funding For Utility Service in North Carolina, and respectfully submit the following initial comments in the above-captioned docket.

BACKGROUND

In April 2020, the Virginia Clean Economy Act (VCEA) became law in Virginia requiring Dominion Energy (Dominion) to achieve carbon neutrality by 2045. In July 2020, Virginia joined the Regional Greenhouse Gas Initiative (RGGI), a market-based program to reduce greenhouse gas (GHG) emissions. In North Carolina, Governor Cooper signed into law House Bill 951 (S.L. 2021-165) on October 13, 2021. Among other things, S.L. 2021-165 enacted uncodified provisions authorizing and directing the Commission to take all reasonable steps to achieve a 70% reduction, from 2005 levels, in carbon dioxide emissions from Duke Energy Carolinas, LLC and Duke Energy Progress, LLC (collectively, Duke) by the year 2030, and to achieve carbon neutrality by the year 2050. Subsequently, on November 15, 2021, President Biden signed into law the Infrastructure Investment and Jobs Act, H.R. 3684, 117th Cong. (2021) (IIJA).¹ The IIJA authorized over a trillion dollars in federal funding, including billions of dollars apportioned to invest in the country's utility infrastructure. These programs range in type and kind from grants to create pilot programs to develop new technologies, to loan programs to ease the burden of needed upgrades, and public-private partnerships to make the most effective use of the apportioned funds.

INITIAL COMMENTS ON POTENTIAL IIJA FUNDING OPPORTUNITIES

The carbon emissions reduction goals set forth in House Bill 951 and VCEA, respectively, will accelerate Duke and Dominion's (collectively, the Utilities) respective transitions to cleaner energy generation over the next decade and beyond. While ratepayers continue paying for the early, non-economic retirement of coal plants, they will also have to simultaneously pay to build the new cleaner electric generating facilities needed to continue reliably serving load and meeting peak demands on the system. In addition to building these facilities, CIGFUR anticipates that certain investments in the Utilities' respective transmission and distribution systems may also be needed to accommodate the increased volume of renewable energy generation on the electric grid at such a rapid pace. These factors together put the Utilities' North Carolina ratepayers at risk of significant rate increases in the coming years.

It is this anticipated ratepayer impact that provides the backdrop for CIGFUR's recommendations contained in its Initial Comments, including:

• CIGFUR supports the pursuit of every avenue of federal funding provided by the IIJA, so long as (i) the funds will be used to offset costs that otherwise would have been incurred regardless of the federal funds; and (ii) all funds obtained will be used for the

¹ Infrastructure Investment and Jobs Act, Public Law 117-58 (Nov. 15, 2021), *available at* <u>https://www.congress.gov/bill/117th-congress/house-bill/3684</u>.

direct benefit of the Utilities' North Carolina ratepayers, either as a direct offset to costs that otherwise would be recovered from the Utilities' ratepayers or the creation of experimental programs or projects² will have the same effect of mitigating ratepayer impact³ associated with this energy transition.

- CIGFUR further recommends that the Commission require all federal funds obtained by the Utilities be used for the direct benefit of all classes of ratepayers in a manner that is fair and proportional to the relative rate impacts to each class associated with House Bill 951 compliance.
- For those funding opportunities for which matching funding by the State is required, and to the extent an appropriation for such purpose by the North Carolina General Assembly is not feasible, CIGFUR recommends that the Commission evaluate whether there may be sufficient direct ratepayer benefits to justify the Commission establishing a matching fund of its own. Such a fund could allow North Carolina to qualify for the maximum amount of federal funding available for programs that would (i) benefit all classes of ratepayers; and (ii) would serve to offset costs which the Utilities would otherwise be incurring regardless of the federal funding and would therefore seek to recover from ratepayers.
- CIGFUR recommends that the Commission prohibit any double-recovery by the Utilities receiving federal funding. To the extent the Utilities receive federal funding,

² For example, in 1977 Carolina Power & Light Company (now Duke Energy Progress) was permitted to implement voluntary demand-type TOU rates after the Commission received federal funding for peak load pricing projects and approved an experimental program implementing such rates.

³ For example, North Carolina in 1999 partnered with the federal Million Solar Roofs Initiative in part to hedge against the price volatility of fossil fuel-generated electricity.

the Utilities may not then also recover costs for the federally-funded portion of those same investments from ratepayers.

• Finally, CIGFUR suggests that the Commission require the Utilities to file a report with the Commission every six (6) months in the present proceeding, detailing their respective efforts to obtain federal funding under the IIJA for the direct benefit of ratepayers.

A. <u>Transmission Infrastructure and Grid Buildout, Hardening, and General Upgrades</u>

Some of the largest apportionments within the IIJA, particularly with respect to electric utility infrastructure, are focused on investments in transmission, storage, distribution, and other grid hardening infrastructure in order to enhance grid resilience and reliability. Maximizing federal funds for the direct benefit of ratepayers is critical to ensuring this energy transition happens in the least-cost way, preserving and continuing reliability and economical service for all classes of the Utilities' ratepayers. To that end, CIGFUR believes ratepayer benefits would flow both from grant programs that would serve to reduce overall costs, which would otherwise be incurred and borne by ratepayers, as well as loan programs that could potentially allow the Utilities access to capital in a way that reduces the overall cost of capital and/or would allow the costs to be spread over a longer period of time to reduce the overall burden on ratepayers.

IJA §§ 40101 and 40103(b) provide a combined total of \$10,000,000,000.00 in federal grant funds to states or electric sector utilities, owners, or operators to promote a more resilient grid through investments in transmission and distribution systems, or aid in the research and development of emerging technologies in furtherance of grid resilience. Further, there is an additional \$1,000,000,000.00 of funding available pursuant to IIJA § 40103(c) for investments promoting a more resilient grid, specifically in rural or remote areas. The types and kinds of

projects eligible for funding under IIJA §§ 40101, 40103(b), and 40103(c) include building new, or upgrading existing, transmission infrastructure; maintaining or improving reliability; and enhancing the resilience of the electric grid.

Given that some level of investment in each of these categories is anticipated as the Utilities take reasonable steps toward achieving the carbon emissions reduction goals set forth in North Carolina and Virginia law, respectively, CIGFUR encourages the Utilities and the Commission to pursue the maximum amount of federal funding available to offset costs and associated ratepayer impacts. While there are matching requirements to receiving the funds under these sections,^{4, 5} partial grants from the federal government provide a clear path to help offset some of the costs ratepayers most likely would otherwise have to shoulder. As such, CIGFUR recommends that the Commission make all efforts to maximize State funding received, require the Utilities whose existing transmission and distribution plans reflect an intent to invest in these kinds of projects to pursue all available funding sources through these sections, and prohibit the Utilities from recovering from ratepayers any amount funded by federal grant money.

⁴ § 40101(h)(1) states that any entity, as defined within subsubsection (a)(2), receiving a grant under this section must match the grant by 100%. Subsubsection (h)(2) reduces that requirement down to one-third if the eligible entity sells less than 4,000,000 megawatt hours of electricity per year. Subsubsection (d)(8) also sets a requirement for states to match 15% of any grant they receive.

⁵ § 40103(b)(1)(A) only provides grants to States, a combination of States, Indian Tribes, a unit of local government, or to a Utilities Commission. Subsection (b)(6) highlights that cost-sharing responsibilities must follow 42 U.S.C. 16352, which states that 20% of funding for research and development projects and 50% of funding for demonstration and commercial application projects must come from non-federal sources. However, there is some discretion provided within the code for the United States Department of Energy (DOE) Secretary to reduce these requirements if deemed necessary and appropriate.

CIGFUR recommends that the Utilities and Commission prioritize consideration of the following IIJA funding opportunities:

IIJA § 40101 – Preventing Outages and Enhancing the Resilience of the Electric Grid

Purpose: To make grants to eligible entities or states for the purpose of funding projects that either supplement existing grid hardening efforts or reduce the likelihood and severity of disruptive events.

Total Appropriated: \$5,000,000,000.00 to be used in fiscal years 2022 – 2026.

Types of Apportionment: All the funds apportioned from this bill are grants and have no statutory repayment requirement.

Amount Available to Utilities or States: According to subsection (f), the total appropriated funds must be split with 50% of the funds awarded to eligible entities and the other 50% going directly to states.

- *Eligible Entities* Subsection (a)(2) lists the eligible entities as: electric grid operator, electricity storage operator, electricity generator, transmission owner or operator, distribution provider, a fuel supplier, and any other relevant entity as determined by the Secretary of the U.S. Department of Energy (DOE).
- Subsection (f)(5) also requires that 30% of the monies set aside for eligible entities must go to "small utilities," defined as a utility that sells than four (4) million megawatt hours of electricity per year.

Eligibility Criteria for Utilities: An entity is only able to apply for a grant up to the amount the entity has spent in the previous three (3) years in efforts to reduce the likelihood and impact of disruptive events. Also, any entity receiving money under this section must match the funds they

receive by 100%, unless the entity qualifies as a "small utility," in which case it must match onethird of the amount awarded.

Eligibility Criteria for States: Funds will be apportioned to states based on a formula that takes into account (i) total population; (ii) total area of the state, or the areas in the state with a low ratio of electricity customers per mile of power lines; (iii) probability of disruptive events during the previous ten years, as determined based on the number of federally-declared disasters or emergencies in the State; (iv) number and severity, measured by population and economic impacts, of disruptive events experienced by the state on or after January 1, 2011; and (v) the amount, on a per capita basis, of public and private expenditures during the previous ten years to carry out mitigation efforts to reduce the likelihood and consequences of disruptive events in the state. The state must match 15% of the amount received in a grant in funding of their own.

Use of Grant Funds: The qualifying activities that can be funded with grants awarded under § 40101 are:

- a. Weatherization technologies and equipment;
- b. Fire-resistant technologies and fire prevention systems;
- c. Monitoring and control technologies;
- d. The undergrounding of electrical equipment;
- e. Utility pole management;
- f. The relocation of power lines or the reconductoring of power lines with low-sag, advanced conductors;
- g. Vegetation and fuel-load management;
- h. Use or construction of distributed energy resources for enhancing system adaptive capacity during disruptive events, including:

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- a. Microgrids, and
- b. Battery-storage subcomponents;
- i. Adaptive protection technologies;
- j. Advanced modeling technologies;
- k. Hardening of power lines; and
- 1. Replacement of old overhead conductors and underground cables.

Importantly, the funds awarded pursuant to this section are explicitly prohibited from being used for (i) the construction of new electric generating facilities; (ii) large-scale battery-storage *that is not used for enhancing system adaptive capacity during disruptive events* (emphasis added); or (iii) cybersecurity.

IIJA § 40103(b) - Electric Grid Reliability and Resilience Research, Development, and

Demonstration

Purpose: To demonstrate innovative approaches to transmission, storage, and distribution infrastructure to harden and enhance resilience and reliability.⁶

Total Appropriated: \$5,000,000,000.00 to be used in fiscal years 2022 – 2026.

Types of Apportionment: The funds flowing from this section would appear to be most like a grant since there are no statutory repayment references or duties imposed. Specifically, 42 U.S.C. 16352(e), the referenced code directing how cost-sharing shall occur within this section, states that "The Secretary shall not require repayment of the Federal share of a cost-shared activity under this section as a condition of making an award."

⁶ The second purpose of funding under this section will be awarded to projects which will enhance regional grid resilience by way of public and rural electric cooperatives, but since that aspect is not directly relevant to the Utilities or their customers, CIGFUR is not addressing it in these comments.

Amount Available to States: There is no maximum listed, nor any specific guidelines of how the funds must be allocated. In theory, the maximum amount available is the entire \$5,000,000,000.00. Of note, these funds are only available to either the state, a combination of two or more states, and Indian Tribe, a unit of local government, or to the Utilities Commission, and not to the Utilities individually.

Eligibility Criteria for States: 42 U.S.C. 18712(b)(6) outlines that all cost sharing for appropriations shall follow the guidance under 42 U.S.C. 16352. In it, 20% of funding for "research and development" activities must be funded by non-federal sources (42 U.S.C. 16352(b)(1)), and 50% of funding for "demonstration and commercial application" activities must be funded with non-federal sources. (42 U.S.C. 16352(c)(1)). There are provisions within the statute with respect to both the "research and development" activities and the "demonstration and commercial application" that delegate discretion to the DOE Secretary to adjust certain requirements for non-federal funding sources if the Secretary deems it necessary and appropriate. (42 U.S.C. 16352(b)(3) and (c)(2)).

IIJA § 40103(c) – Energy Improvement in Rural or Remote Areas

Purpose: To carry out activities to improve (a) the resilience, safety, reliability, and availability of energy; and (b) environmental protection from adverse impacts of energy generation in rural or remote areas of the United States.

Total Appropriated: \$1,000,000,000.00 to be used in the fiscal years of 2022 - 2026.

Types of Apportionment: The funds flowing from this section appear to be discretionary, awarded and allocated as the DOE Secretary sees fit.

Amount Available to Utilities or States: Discretionary up to the maximum appropriation specified.

Eligibility Criteria for Utilities or States: Subject to the discretion of the DOE Secretary.

Eligible Projects: The qualifying projects for grant funds awarded under § 40103(c) are:

- a. Overall cost-effectiveness of energy generation, transmission, or distribution systems;
- b. Siting or upgrading transmission and distribution lines;
- c. Reducing greenhouse gas emissions from energy generation by rural or remote areas;
- d. Providing or modernizing electric generation facilities;
- e. Developing microgrids; and
- f. Increasing energy efficiency.

Importantly, the funds awarded pursuant to this section are explicitly prohibited from being used for (i) construction of new electric generating facilities; (ii) large-scale battery-storage *that is not used for enhancing system adaptive capacity during disruptive events* (emphasis added); or (iii) cybersecurity.

IIJA § 40106 – Transmission Facilitation Program

Purpose: To create a fund that allows the U.S. DOE Secretary to facilitate the construction of electric power transmission lines and related facilities.

Total Appropriated: There is authorization for the Secretary to approve loans that in total cannot have an outstanding repayable balance over \$2,500,000,000.00 at any time.

Type of Apportionment: This section authorizes the Secretary to provide loans to any eligible entity seeking to carry out an eligible project. These funds must be recovered, either directly from the eligible entity or through rates charged over time for the use of the contracted transmission capacity, for which the U.S. DOE may contract for up to 50% of available capacity. If a balance remains at the end of the eligible project's useful life or if a project is considered but never constructed, the loan balances would be forgiven. Eligible Projects: The qualifying projects that can be performed under § 40106 are:

- a. Construction of new electric transmission lines;
- b. Replace existing electric transmission lines; or
- c. Increase the capacity of existing electric transmission lines.

With respect to the two repayment options under §40106, CIGFUR encourages the Commission to require any regulated entity applying for funds within this section to choose the repayment option that would provide the largest financial benefit to ratepayers. Further, CIGFUR recommends that the Commission require such regulated entity to first evaluate the relative cost-effectiveness of this public-private partnership and determine if such partnership would be in the pecuniary best interest of ratepayers as opposed to obtaining financing exclusively through the private sector.

IIJA § 40107 – Deployment of Tech to Enhance Grid Flexibility

Purpose: To provide additional funds to an existing matching fund that provides grants to qualifying Smart Grid investments.

Total Appropriated: \$3,000,000,000.00 in additional funding beginning in fiscal year 2022 and remain available until 9/30/2026.

This section provides an additional \$3,000,000,000.00 to an existing grant program to fund up to 50% of qualifying smart grid investments as enumerated under subsection (b) of 42 U.S.C. 17386.

B. <u>New and Existing Electricity Generation</u>

The IIJA also provides a multitude of funding opportunities to upgrade existing electric generating facilities or to offset the cost of building new, cleaner electric generating facilities. To meet the carbon emissions reduction goals contained in North Carolina law, the deliberate

phase-out of coal plants will be necessary over time, but this will come at a steep cost for ratepayers. As a result, CIGFUR encourages the Commission to require that the Utilities make every reasonable effort to maximize the amount of funding they receive through the IIJA, which can then be used to offset the financial burden of the energy transition on all classes of North Carolina ratepayers.

To the extent new nuclear generation and/or nuclear subsequent license renewals are selected as the least-cost resource mix in the Commission-approved Carbon Plan or Integrated Resources Plans (IRPs), IIJA §§ 40323⁷ and 41002⁸ provide potential funding sources to help ease the financial burden associated with nuclear generation. Similarly, to the extent wind or solar electric generating projects are selected as part of the least-cost resource mix in the Commission-approved Carbon Plan or IRPs, IIJA § 41007 can be used to directly offset costs that otherwise would be recovered from ratepayers. IIJA § 41007 provides for \$180,000,000.00 in funding solely for the purpose of subsidizing the buildout of new solar and wind electric generation projects.⁹

IIJA § 40314 – Additional Clean Hydrogen Programs

The IIJA authorizes appropriations of \$8 billion during fiscal years 2022-26 "for the development of regional clean hydrogen hubs that demonstrate the production, processing, delivery, storage, and end-use of clean hydrogen."¹⁰ Section 40314 amends Title VII of the Energy

⁷ Provides \$6,000,000,000.00 in funding to provide credits to nuclear plants that are no longer financially viable to operate and will be retired because of this financial infeasibility.

⁸ Provides for \$3,211,000,000.00 of funding announced in the U.S. Dept. of Energy's DE-FOA-002271 announcement. The goal of this funding program is to facilitate the development of advanced nuclear reactor demonstrations.

 $^{^{9}}$ \$100,000,000.00 is to be used towards different types of wind projects between the years of 2022 – 2025, and \$80,000,000.00 is to be used towards different types of solar projects between the years of 2022 – 2025.

¹⁰ DOE Hydrogen Program, Request for Information # DE-FOA-0002664—Regional Clean Hydrogen Hubs Implementation Strategy, U.S. Department of Energy (Feb. 15, 2022).

Policy Act of 2005¹¹ by adding a new "Section 813 – Regional Clean Hydrogen Hubs," which is defined as "a network of clean hydrogen producers, potential clean hydrogen consumers, and connective infrastructure located in close proximity."¹² Pursuant to the directive in the IIJA, the DOE is in the process of soliciting proposals for the Regional Clean Hydrogen Hubs, and is expected to select at least four hubs within a year of receiving proposals, pursuant to the following criteria:

- **"Feedstock diversity** at least one hub shall demonstrate the production of clean hydrogen from fossil fuels, one hub from renewable energy, and one hub from nuclear energy.
- End-use diversity at least one hub shall demonstrate the end-use of clean hydrogen in the electric power generation sector, one in the industrial sector, one in the residential and commercial heating sector, and one in the transportation sector.
- Geographic diversity each regional clean hydrogen hub shall be located in a different region of the United States and shall use energy resources that are abundant in that region.
- Hubs in natural gas-producing regions at least two regional clean hydrogen hubs shall be located in the regions of the United States with the greatest natural gas resources.

¹¹ Energy Policy Act of 2005, Public Law 109-58, Title VIII – Hydrogen.

¹² *Id.* at § 813(a).

- **Employment** DOE shall give priority to regional clean hydrogen hubs that are likely to create opportunities for skilled training and long-term employment to the greatest number of residents in the region.
- Additional Criteria DOE may take into consideration other criteria that are necessary or appropriate to carry out the regional clean hydrogen hubs program.

The Southeast Hydrogen Energy Alliance (SHEA) has undertaken a number of efforts to develop the Southeast as a hydrogen energy economy, including but not limited to efforts to win a regional clean hydrogen hub award and other initiatives set forth in the IIJA. E4 Carolinas serves as a third-party facilitator of various organizational conferences and workshops with the purpose of planning and developing a regional clean hydrogen project. SHEA, together with E4 Carolinas, expects to submit a response to DOE's Request for Information (RFI) by the current March 21, 2022 RFI response deadline. CIGFUR recommends that the Commission request that the Utilities keep the Commission apprised of their intent to incorporate clean hydrogen as a future potential energy source either through in-person updates at Commission Staff Conferences or as part of the quarterly reports recommended by CIGFUR, in addition to addressing the viability of this resource in Duke's upcoming Carbon Plan filing on May 16, 2022.

C. <u>Electric Vehicle Infrastructure</u>

In an announcement by the Department of Transportation (DOT),¹³ the Biden administration unveiled a plan for North Carolina to receive \$16,137,196.00 during the 2022 fiscal year for the purpose of, among other things, building electric vehicle charging stations as part of a

¹³ Department of Transportation, *President Biden, USDOT and USDOE Announce \$5 Billion over Five Years* for National EV Charging Network, Made Possible by Bipartisan Infrastructure Law (February 10, 2022), available at <u>https://highways.dot.gov/newsroom/president-biden-usdot-and-usdoe-announce-5-billion-over-five-years-national-ev-charging</u>. These funds flow from the National Electric Vehicle Infrastructure Formula Program. To access these funds, states must submit an EV Infrastructure Deployment Plan.

network of charging stations along a national corridor of highways and interstate roads. This press release also provides for a second round of funding to be awarded on a competitive basis later this year. More broadly, IIJA § 11401 outlines that a state may receive a grant to help finance new publicly-accessible electric vehicle charging infrastructure.

CONCLUSION

In order to mitigate the financial impact of the energy transition on ratepayers, CIGFUR encourages the Commission, the State of North Carolina, Dominion, and Duke to maximize the amount of funding obtained under the IIJA and ensure that all such funds obtained that are related to electric utility infrastructure are used to provide a 1:1 offset of costs that otherwise would be recovered from ratepayers. In addition, CIGFUR recommends as follows:

- CIGFUR supports the pursuit of every avenue of federal funding provided by the IIJA, so long as (i) the funds are used to offset costs that otherwise would have been incurred regardless of the federal funds; and (ii) all funds obtained are used for the direct benefit of the Utilities' North Carolina ratepayers, either as a direct offset to costs that otherwise would be recovered from ratepayers or through the creation of experimental programs or projects that will have the same effect of mitigating ratepayer impact associated with the energy transition.
- CIGFUR further recommends that the Commission require all federal funds obtained by the Utilities to be used in a way that benefits all classes of ratepayers in a manner that is fair and proportional to the relative rate impacts to each class in order to comply with House Bill 951.
- For those opportunities for which matching funding by the State is required, and to the extent an appropriation for such purpose by the North Carolina General Assembly is not feasible, CIGFUR suggests that the Commission evaluate whether there may be

sufficient direct ratepayer benefits to justify the Commission establishing a small matching fund of its own in order for North Carolina to qualify for the maximum amount of federal funding available for programs (i) benefitting all classes of ratepayers; and (ii) would serve to offset costs which the Utilities would otherwise be incurring regardless of the federal funding and seeking to recover from ratepayers.

- CIGFUR recommends that the Commission expressly prohibit any double-recovery by the Utilities receiving federal funding. To the extent the Utilities receive federal funding, the Utilities may not then also recover costs for the federally-funded portion of those same investments from ratepayers.
- CIGFUR recommends that the Commission request that the Utilities keep the Commission apprised of efforts to win a regional clean hydrogen hub award from the DOE as a result of the IIJA. Ideally, such updates could occur either through in-person updates at Commission Staff Conferences or through filing quarterly reports, and addressed in Duke's upcoming Carbon Plan filing.

CIGFUR appreciates the opportunity to file these initial comments and respectfully reserves its right to file reply comments at the appropriate time.

Respectfully submitted this the 15th day of March 2022.

BAILEY & DIXON, LLP

/s/ Christina D. Cress Christina D. Cress N.C. State Bar No. 45963 434 Fayetteville St., Suite 2500 Raleigh, NC 27601 (919) 607-6055 ccress@bdixon.com Counsel for CIGFUR I, II, & III

CERTIFICATE OF SERVICE

The undersigned attorney for CIGFUR certifies that she served by electronic mail the foregoing *Initial Comments of CIGFUR I, II, & 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.

This the 15th day of March, 2022.

By: <u>/s/ Christina D. Cress</u> Christina D. Cress