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July 1, 2024

VIA ELECTRONIC FILING

Ms. A. Shonta Dunston, Chief Clerk
North Carolina Utilities Commission
Dobbs Building
430 North Salisbury Street
Raleigh, North Carolina 27603

**RE: Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's
Rebuttal Testimony and Exhibits in Support of 2023-2024 Carbon Plan
and Integrated Resource Plan
Docket No. E-100, Sub 190**

Dear Ms. Dunston:

On behalf of Duke Energy Carolinas, LLC (“DEC”) and Duke Energy Progress, LLC (“DEP”) and, together with DEC, the “Companies”) and pursuant to the North Carolina Utilities Commission’s (“Commission”) January 17, 2024, *Order Scheduling Public Hearings, Establishing Interventions and Testimony Due Dates and Discovery Guidelines, Requiring Public Notice, And Providing Direction Regarding Duke’s Supplemental Modeling*,¹ (the “Procedural Order”) in the above-captioned Docket, please find enclosed for filing the Companies’ *Rebuttal Testimony and Exhibits* supporting their proposed 2023-2024 Carbon Plan and Integrated Resource Plan (“CPIRP” or “the Plan”) as filed with the Commission on August 17, 2023.²

The Companies are filing Rebuttal Testimony and exhibits of thirteen (13) witnesses and witness panels covering an array of subject matter as follows:

	Topic	Duke Energy Witness(es)
1.	Lead Witness Sponsoring CPIRP	Kendal Bowman, North Carolina State President for DEC and DEP
2.	IRP and Near-Term Actions	Glen Snider, Managing Director of Carolinas Integrated Resource Planning and Analytics

¹ Procedural Order at 10 (Ordering Paragraph No. 14).

² The CPIRP includes the initial Plan filed on August 17, 2023, as well as the Supplemental Planning Analysis filed on January 31, 2024.

		Michael Quinto, Director of IRP Advanced Analytics Thomas Beatty, Senior Engineer, Production Cost Modeling and Data Management
3.	Resource Adequacy	Nick Wintermantel, Principal, Astrapé Consulting Cole Benson, Managing Consultant, Astrapé Consulting
4.	Reliability and Operational Resilience	John Samuel Holeman III, Vice President, Special Projects, Grid Planning and Integration Patrick O’Connor, Lead Quantitative Analyst
5.	Dispatchable Generation	Daniel Donochod, General Manager, Fleet Transition Strategy Peter C. Hoeflich, Principal Engineer, Generation Execution and Technologies Venu Ghanta, Vice President, Regulatory Affairs and Policy – North Carolina
6.	Natural Gas Firm Transportation and Fuel Supply	John A. Verderame, Vice President, Fuels & Systems Optimization H. Lee Mitchell, IV, Director of Fuel Strategy and Planning
7.	Renewables and Energy Storage	Maura Farver, State Energy and Policy Director Justin LaRoche, Director of Renewable Development Laurel M. Meeks, Director of Renewable Business Development
8.	Long-Lead Generation and Pumped Storage Hydro	Mark McIntire, Environmental Policy & Affairs Director for North Carolina Steven D. Capps, Senior Vice President of Nuclear Operations Benjamin Smith, Generation & Regulatory Strategy Director
9.	Transmission and Interconnection	Sammy Roberts, General Manager, Transmission Planning and Operations Strategy Jing Shi, Managing Director, Renewable Integration
10.	Grid Edge and Customer Programs	Tim Duff, General Manager, Grid Strategy Enablement Jonathan L. Byrd, Managing Director, Rate Design and Regulatory Solutions
11.	Carolinas Utility Operations	Laura Bateman, Vice President of Carolinas Rates and Regulatory Strategy Mark Goettsch, Project Director, Grid Planning and Integration group
12.	EIR Loans and Financing	Jordan Morgan, Director, Credit and Capital Markets, Duke Energy Business Services LLC (“DEBS”)

		Paige Swofford, Principal Strategy & Planning Manager in the Enterprise Strategy & Risk organization, DEBS
13.	Economic Development and Growth	Phillip O. Stillman, Managing Director of Load Forecasting and Corporate Strategic Regulatory Initiatives Andrew Tate, Director, Economic Development Chris Edge, Vice President, Large Business Customers

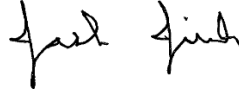
As directed by the Commission’s February 21, 2024, *Order Establishing Additional Procedures for Expert Witness Hearing* (the “Second Procedural Order”) in the above-captioned Dockets, the Companies are providing an Index of Designated Issues in the Companies’ Rebuttal Testimony as Attachment 1 to this letter. This document provides a “roadmap” that identifies where each designated issue, as previously set forth in the Companies’ March 6th filing,³ is discussed.

In addition, Exhibit 2 to the IRP and Near-Term Actions Panel Rebuttal testimony provides a report describing the Companies’ recently-completed modeling and analysis of the Environmental Protection Agency’s (“EPA”) recently-issued Final Rule under Section 111 of the Clean Air Act (the “CAA Section 111 Sensitivity Analysis”) and its impact on the Companies’ CPIRP. The Companies are making available the CAA Section 111 Sensitivity Analysis’s EnCompass modeling files via datasite contemporaneously with this filing.

Portions of the rebuttal testimony and exhibits the Companies are filing herewith contain confidential information that should be protected from public disclosure. The information designated herein as confidential qualifies as “trade secrets” under N.C.G.S. § 66-152(3). Pursuant to N.C.G.S. § 132-1.2, the Companies have redacted this confidential information from the public versions of their rebuttal testimonies and exhibits. The Companies are contemporaneously filing with the Commission all information designated as confidential under seal and will make this information available to other interested parties pursuant to an appropriate nondisclosure agreement.

If you have any questions, please do not hesitate to contact me. Thank you for your assistance with this matter.

Sincerely,



Jack E. Jirak

Enclosure

cc: Parties of Record

³ DEC DEP Index to Direct Testimony and Identification of Designated Issues for the 2023-2024 Carbon Plan and Integrated Resource Plan Proceeding.

Index of Designated Issues in Duke Energy Carolinas, LLC's and Duke Energy Progress, LLC's Rebuttal Testimony

Docket No. E-100, Sub 190

Rebuttal Testimony Index		
Designated Issues	Duke Energy Rebuttal Testimony	Section/Pages
1. Planning Objectives in a Changing Energy Landscape	Bowman	Section II. (Pages 2-10)
	IRP and Near-Term Actions Panel	Section II (Pages 9-12) Section V.A. (Pages 117-126)
2. Modeling (Methodology, Assumptions, and Other Modeling Issues)	IRP and Near-Term Actions Panel	Section III.A-B, D. (Pages 12-54, 69-72) Section V.B-H. (Pages 120-159)
a. CAA 111 Sensitivity Analysis	Dispatchable Generation Panel	Section II. (Pages 4-19)
	IRP and Near-Term Actions Panel	Section III.C. (Pages 54-69) Rebuttal Exhibit 2
3. Coal Unit Retirement Analysis	IRP and Near-Term Actions Panel	Section III.D. (Pages 54-69) Section V.H. (Pages 153-158)
	Natural Gas Firm Transportation and Fuel Supply Panel	Section V. (Pages 36-37)
4. Load Forecast	Bowman	Section II. (Pages 2-9) Section IV. (Pages 15-18)
	IRP and Near-Term Actions Panel	Section III.A. (Pages 16-17) Section V.D. (Pages 124-125)
a. Economic Development and Growth	Economic Development and Growth Panel	Overall Panel testimony addresses these issues.
5. Planning Reserve Margin / 2023 Resource Adequacy Study	Resource Adequacy Panel	Overall Panel testimony addresses these issues.
	IRP and Near-Term Actions Panel	Section III.A-B, E. (Pages 18-20, 41-43, 69-71). Section V. (Pages 122-123)

Rebuttal Testimony Index		
Designated Issues	Duke Energy Rebuttal Testimony	Section/Pages
6. Natural Gas Supply and Hydrogen	Dispatchable Generation Panel	Section II. (Pages 4-20)
	Natural Gas Firm Transportation and Fuel Supply Panel	Overall Panel testimony addresses these issues.
7. Pathways, Portfolios, and Portfolio Comparison and Evaluation	IRP and Near-Term Actions Panel	Section II. (Pages 9-12) Section IV.A. (Pages 71-86)
8. Execution Plan	IRP and Near-Term Actions Panel	Section III.D. (Pages 54-69) Section IV (Pages 71-117)
	Bowman	Section III. (Pages 11-12)
9. Near-Term Actions: Supply-Side Development and Procurement Activities	IRP and Near-Term Actions Panel	Section IV. (Pages 71-117)
a. Solar	Renewables and Energy Storage Panel	Section II. (Pages 6-17)
	IRP and Near-Term Actions Panel	Section IV.A.1. (Pages 86-93)
b. Battery Storage	Renewables and Energy Storage Panel	Section IV. (Page 26-34)
	IRP and Near-Term Actions Panel	Section IV.A.1. (Pages 86-93)
c. Onshore Wind	Renewables and Energy Storage Panel	Section III. (Pages 16-28)
	IRP and Near-Term Actions Panel	Section III.B (Page 33) Section IV.A.1. (Pages 86-93)
d. New Gas	Dispatchable Generation Panel	Overall Panel testimony addresses these issues.
	Natural Gas Firm Transportation and Fuel Supply Panel	Overall Panel testimony addresses these issues.
	Reliability and Operational Resilience Panel	Section III. (Pages 26-31)
	IRP and Near-Term Actions Panel	Section IV.A.2 (Pages 94-102)
e. Pumped Storage Hydro	Long Lead Generation and Pumped Storage Hydro Panel	Section II. (Pages 3-7)

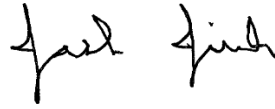
Rebuttal Testimony Index		
Designated Issues	Duke Energy Rebuttal Testimony	Section/Pages
	IRP and Near-Term Actions Panel	Section III.A (Page 22) Section IV.B. (Page 103)
f. Advanced Nuclear	Long Lead Generation and Pumped Storage	Section IV. (Pages 13-18)
	IRP and Near-Term Actions Panel	Section IV.C. (Pages 104-111)
g. Offshore Wind	Long Lead Generation and Pumped Storage Hydro Panel	Section III. (Pages 7-13)
	IRP and Near-Term Actions Panel	Section III.B (Pages 34-38) Section IV.C. (Pages 104-111)
11. Near-Term Actions: Existing Resources	IRP and Near-Term Actions Panel	Section IV. (Pages 71-117)
a. Existing Gas Fleet (Flexibility Projects)	Dispatchable Generation Panel	Issue Not Controverted.
b. Existing Nuclear (SLRs and Uprate Projects)	Long-Lead Generation and Pumped Storage Hydro	Section IV. (Pages 19-21)
12. Advancing Grid Edge and Customer Programs	Grid Edge and Customer Programs Panel	Overall Panel testimony addresses these issues.
	IRP and Near-Term Actions Panel	Section V.E. (Pages 134-138)
	Reliability and Operational Resilience Panel	Section IV. (Pages 31-34)
13. Transmission System Planning and Grid Transformation	Transmission and Interconnection Panel	Overall Panel testimony addresses these issues.
a. Strategic Transmission Additions / RZEP 2.0	Transmission and Interconnection Panel	Section IV.B. (Pages 34-47)
b. Carolinas Transmission Planning	Transmission and Interconnection Panel	Section IV.A. (Pages 30-34)
c. Regional / Interregional Transmission Planning Process	Transmission and Interconnection Panel	Section VI. (Pages 59-62)
14. Ensuring Reliability and Operational Resilience	Reliability and Operational Resilience Panel	Overall Panel testimony addresses these issues.
	Bowman	Section II. (Pages 2-12)

Rebuttal Testimony Index		
Designated Issues	Duke Energy Rebuttal Testimony	Section/Pages
15. Requests for Relief and “Selection” of Resources to Execute Carbon Plan	Bowman	Section II. (Pages 3-4)
	IRP and Near-Term Actions Panel	Section IV.A (Pages 71-86)
16. Dual State Planning for the Carolinas System	Carolinas Utility Operations Panel	Section IV. (Pages 10-16)
17. Merger	Bowman	Section IV. (Pages 17-18)
	Carolinas Utility Operations Panel	Section III. (Pages 5-11)
18. Energy Infrastructure Reinvestment (“EIR”) Program	EIR Loans and Financing Panel	Overall Panel testimony addresses these issues.

CERTIFICATE OF SERVICE

I certify that copies of Duke Energy Carolinas, LLC's and Duke Energy Progress, LLC's *Rebuttal Testimony and Exhibits*, filed today in Docket No. E-100, Sub 190, have been served by electronic mail, hand delivery, or by depositing a copy in the United States mail, postage prepaid, properly addressed to parties of record.

This the 1st day of July, 2024.



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