

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-22, SUB 675

In the Matter of)	
Application by Virginia Electric and)	
Power Company, d/b/a Dominion)	TESTIMONY OF
Energy North Carolina, for Authority to)	EVAN D. LAWRENCE
Adjust its Electric Rates and Charges)	PUBLIC STAFF –
and Revise its Fuel Factor Pursuant to)	NORTH CAROLINA UTILITIES
G.S. 62-133.2 and Commission Rule)	COMMISSION
R8-55)	

NOVEMBER 7, 2023

1 **Q. Mr. Lawrence, please state your name, business address, and**
2 **current position.**

3 A. My name is Evan D. Lawrence. My business address is 430 North
4 Salisbury Street, Dobbs Building, Raleigh, North Carolina where I
5 work for the Public Staff of the North Carolina Utilities Commission
6 (Public Staff). Within the Public Staff, I am an engineer in the Energy
7 Division, specifically the Electric Section – Operations and Planning.

8 **Q. Briefly state your qualifications and duties.**

9 A. My qualifications and duties are attached as Appendix A.

10 **Q. What is the mission of the Public Staff?**

11 A. The Public Staff represents the concerns of the using and consuming
12 public in all public utility matters that come before the North Carolina
13 Utilities Commission. Pursuant to N.C. Gen. Stat. § 62-15(d), it is the
14 Public Staff's duty and responsibility to review, investigate, and make
15 appropriate recommendations to the Commission with respect to the
16 following utility matters: (1) retail rates charged, service furnished,
17 and complaints filed, regardless of retail customer class; (2)
18 applications for certificates of public convenience and necessity; (3)
19 transfers of franchises, mergers, consolidations, and combinations
20 of public utilities; and (4) contracts of public utilities with affiliates or
21 subsidiaries. The Public Staff is also responsible for appearing

1 before State and federal courts and agencies in matters affecting
2 public utility service.

3 **Q. What is the purpose of your testimony in this proceeding?**

4 A. The purpose of my testimony is to present the Public Staff's findings
5 regarding the proposed fuel and fuel-related cost factors for each
6 North Carolina retail customer class¹ of Virginia Electric and Power
7 Company, d/b/a Dominion Energy North Carolina (DENC or the
8 Company), as set forth in the Company's August 15, 2023,
9 Application, September 28, 2023, supplemental filing, and November
10 3, 2023, second supplemental filing (Second Supplemental Filing).
11 My testimony also serves to notify the Commission of the Public
12 Staff's intent to work with the Company to evaluate the methodology
13 used to determine the billing period rate for Rider A for its future fuel
14 filings.

15 **Q. Please summarize the results of your investigation and your
16 recommendations.**

17 A. Based upon my investigation, I am recommending that the
18 Commission approve the Company's requested fuel rates as
19 proposed in its Second Supplemental Filing. I am not recommending

¹ These classes are: Residential, Small General Service and Public Authority, Large General Service, Schedule NS, Schedule 6VP, Outdoor Lighting, and Traffic customer classes.

1 any disallowances or modifications to the Company's proposed fuel
2 rates.

3 **Q. What are the test and billing periods in this proceeding?**

4 A. For this proceeding, the test period is July 1, 2022, through June 30,
5 2023, and the billing period is February 1, 2024, through January 31,
6 2025.

7 **Q. Please describe the scope of your investigation.**

8 A. I have reviewed DENC's application, prefiled testimony and exhibits,
9 supplemental filings, fuel costs, test period baseload power plant
10 performance reports, various documents related to test year power
11 plant outages, responses to data requests, and conducted numerous
12 conference calls with the Company. I have also reviewed the
13 testimony of Public Staff witness Darrell Brown.

14 **Q. Did the Company meet the standards of Commission Rule R8-
15 55(k) for the test year?**

16 A. No. Commission Rule R8-55(k) requires that either (a) the test year
17 system-wide nuclear capacity factor, or (b) the system-wide capacity
18 factor based upon a two year average, be greater than or equal to
19 the national average capacity factor for nuclear production facilities
20 based on the most recent five-year period available as reflected in
21 the most recent North American Electric Reliability Corporation's
22 (NERC) Generating Availability Report (GAR) appropriately

1 weighted for the size and type of plant. For the test year, the
2 Company did not meet the benchmark set forth in Commission Rule
3 R8-55(k)(a) or (b). The Company reported a system-wide nuclear
4 capacity factor of 92.3% for the test year and preceding year, and a
5 single year system-wide nuclear capacity factor of 89.4%, both of
6 which are below the NERC five-year weighted average nuclear
7 capacity factor of 93.09%.

8 **Q. Please discuss the factors that led to the Company not meeting**
9 **the standard set forth in Commission Rule R8-55k.**

10 A. The outages which had the largest impact on the Company's overall
11 weighted nuclear capacity factor were refueling outages. Across the
12 Company's four nuclear units, there were three refueling outages in
13 the test year; two refueling outages in a test year are more typical. In
14 addition, there were additional outages not related to scheduled
15 refueling outages that also negatively impacted the test period
16 weighted capacity factor for the Company's nuclear fleet.

17 **Q. Based on your investigation, are there any findings that result**
18 **in a recommendation for an adjustment to replacement power**
19 **costs?**

20 A. No. Based on my investigation of the operation of the Company's
21 nuclear power plants during the test year, I do not recommend any
22 replacement power cost adjustments.

1 **Q. How have recent natural gas prices impacted your review of the**
2 **current application?**

3 A. The Public Staff is taking no issue with the current application's
4 forward looking fuel component. In previous fuel filings,² the Public
5 Staff has discussed elevated natural gas commodity prices and
6 volatility. However, natural gas commodity prices in the test year
7 were significantly below the highest prices observed in 2021 and
8 2022. Those high prices in those prior years contributed to the
9 significant fuel expense levels and resulting under-recoveries in prior
10 cases.

11 Table 1 below shows the daily average Henry Hub natural gas spot
12 prices³ for the previous three test years, and the start of the next test
13 year.

14 Table 1: Henry Hub Average Spot Price

Date Range	Average Natural Gas Price
July 1, 2019 – June 30, 2020	\$2.10/MMBTU
July 1, 2020 – June 30, 2021	\$2.76/MMBTU
July 1, 2021 – June 30, 2022	\$5.32/MMBTU
July 1, 2022 – June 30, 2023	\$4.63/MMBTU
July 1, 2023 – October 17, 2023	\$2.65/MMBTU

² Docket Nos. E-2, Sub 1292; E-7, Sub 1263; E-2, Sub 1321; E-22, Sub 605; and E-22 Sub 644.

³ Source: <https://www.eia.gov/dnav/ng/hist/rngwhhdD.htm>

1 Additionally, the NYMEX natural gas futures quotes⁴ average
2 \$3.40/MMBTU for 2024, with a minimum monthly price of
3 \$3.021/MMBTU for April 2024, and a maximum price of
4 \$4.218/MMBTU for December 2024.

5 **Q. Please discuss how the Company calculates the billing period**
6 **rate.**

7 A. The Company uses the test period as the basis of the “projection” it
8 uses to determine the rate to be charged for the billing period in Rider
9 A. To determine the load that must be served, it uses the customer
10 count and weather-normalized test period sales, adjusted for
11 customer growth. Then, the Company uses the delivered cost of fuel
12 during the test period as the fuel cost for the billing period. Finally, it
13 normalizes the nuclear capacity factor of its nuclear units and applies
14 known changes to the generation fleet (in this case, new solar
15 facilities coming online during the billing period), and then models the
16 generation mix dispatch needed to meet load based on these factors.
17 This approach results in the billing period costs being substantially
18 similar to the test period costs.

⁴ Source: <https://www.cmegroup.com/markets/energy/natural-gas/natural-gas.quotes.html>

1 **Q. Do you have any concerns with the use of this methodology for**
2 **determining billing period costs?**

3 A. Yes, I do. The Company's methodology, which relies heavily on the
4 test period, serves its purpose well during periods of fuel price
5 stability. However, over the past several years, the weaknesses of
6 this methodology have contributed to large under-recoveries. When
7 the test period costs are substantially different from the billing period,
8 this methodology will result in a potentially avoidable EMF balance.
9 In addition, the increase in the percentage of natural gas energy
10 production over past years has increased the exposure to natural
11 gas price fluctuations for the Company and its ratepayers.

12 **Q. What is your recommendation for the billing period rate and**
13 **calculation methodology?**

14 A. At this time, I am not recommending any change to the billing period
15 rate, nor the methodology, and recommend that the Commission
16 accept each for this case. However, prior to the Company's 2024 fuel
17 filing, the Public Staff intends to work with the Company to explore
18 methodologies available to ensure that the method used by the
19 Company appropriately balances the risks and benefits for
20 ratepayers. The Company has agreed to discussions with the Public
21 Staff (prior to DENC's next fuel rider filing) regarding the
22 methodology used to determine Rider A.

1 **Q. Please provide a general summary of the multi-step mitigation**
2 **measures approved in the Company's last fuel filing in Docket**
3 **No. E-22, Sub 644.**

4 A. The implementation of the multi-step Rider B to recover the under-
5 collection in the 2022 fuel filing has worked as expected thus far. The
6 intent of the multi-step recovery was to mitigate rate shock and keep
7 the rate increases less volatile through this fuel filing. The remaining
8 EMF balance not recovered under the initial step of Rider B as part
9 of the multi-year mitigation will become Rider B1 at the start of the
10 February 1, 2024, billing period. This Rider B1 will be combined with
11 Rider A (the billing period rate) and Rider B (the traditional EMF rate)
12 to form the total amount to be recovered. The net impact of Riders
13 A, B, and B1 will result in an overall fuel rate decrease compared to
14 current rates. Note that Rider B1 and Rider B are discussed by Public
15 Staff witness Brown.

16 **Q. Please provide the rates that the Public Staff recommends the**
17 **Commission accept.**

18 A. Public Staff witness Brown describes the Public Staff's review of the
19 test period expenses in his testimony, and I have incorporated these
20 recommendations in Table 2 – Total Proposed Fuel and Fuel-
21 Related Cost Factors for February 1, 2023 – January 1, 2024 below:

1
2

Table 2 - Total Proposed Fuel and Fuel-Related Cost Factors for
February 1, 2023 – January 1, 2024

(\$ per kWh)

Rate Class	Base	Rider A	Rider B	Rider B1	Total*
NC Jurisdiction	0.02092	0.013656	0.004386	0.006647	0.045609
Residential	0.02118	0.013755	0.004431	0.006666	0.046032
Small General Service & Public Authority	0.02115	0.013753	0.004427	0.006466	0.045796
Large General Service	0.02098	0.013675	0.004396	0.006663	0.045714
Schedule NS (Nucor Steel)	0.02036	0.013223	0.004260	0.006874	0.044717
Schedule 6VP (Variable Pricing)	0.02065	0.013417	0.004321	0.006450	0.044838
Outdoor Lighting	0.02118	0.013755	0.004431	0.006180	0.045546
Traffic	0.02118	0.013755	0.004431	0.006430	0.045796

3 **Q. Does this complete your testimony?**

4 **A.** Yes, it does.

* Calculations reflect the application of the voltage differentiation factors used by the Company in its application, with the exception of Rider B1 which the Public Staff accepts.

QUALIFICATIONS AND EXPERIENCE

EVAN D. LAWRENCE

I graduated from East Carolina University in Greenville, North Carolina in May 2016, earning a Bachelor of Science degree in Engineering with a concentration in Electrical Engineering. While attending East Carolina University, I completed an internship with Weyerhaeuser in the summer of 2014, and the Greenville Utilities Commission from the summer of 2015 through graduation in 2016. While at Weyerhaeuser, I assisted in plant maintenance activities, problem troubleshooting and diagnosis, and optimization of plant systems. With Greenville Utilities, I assisted with field asset inventory. I started my current position with the Public Staff in September 2016. Since that time, my duties and responsibilities have focused on reviewing renewable energy projects, rate design, and renewable energy portfolio standards (REPS) compliance. I have filed an affidavit or testimony in multiple DENC, DEP, and DEC REPS and fuel proceedings, testimony in New River Light and Power's 2017 rate case proceeding, testimony in Western Carolina University's 2020 rate case proceeding, testimony in DEP's 2022 rate case proceeding, testimony in DEC's 2022 rate case proceeding, and testimony in multiple dockets for requests for CPCNs. Additionally, I served as a co-chair of the National Association of State Utility and Consumer Advocates

Distributed Energy Resources and Energy Efficiency Committee from 2019 to 2021.

CERTIFICATE OF SERVICE

I certify that I have served a copy of the foregoing on all parties of record or to the attorney of record of such party in accordance with Commission Rule R1-39, by United States mail, postage prepaid, first class; by hand delivery; or by means of facsimile or electronic delivery upon agreement of the receiving party.

This the 7th day of November, 2023.

Electronically submitted
/s/William Freeman