

July 24, 2023

**VIA ELECTRONIC FILING**

Ms. A. Shonta Dunston, Chief Clerk  
North Carolina Utilities Commission  
4325 Mail Service Center  
Raleigh, North Carolina 27699-4325

*Re: Public Service Company of North Carolina, Inc. d/b/a Dominion Energy  
North Carolina's Second Supplemental Testimony and Exhibits of Rose M.  
Jackson – Public Redacted  
Docket No. G-5, Sub 661*

Dear Ms. Dunston:

Enclosed for filing on behalf of Public Service Company of North Carolina, Inc., d/b/a Dominion Energy North Carolina (the “Company”) is the public redacted version of the Second Supplemental Testimony and Exhibits of Rose M. Jackson.

Jackson Second Supplemental Direct Exhibit 2 contains commercially sensitive information that should be protected from public disclosure. The information designated herein as confidential qualifies as “trade secrets” under N.C. Gen. Stat. § 66-152(3). If this information were to be publicly disclosed, it would allow competitors, vendors, and other market participants to gain an undue advantage, which may ultimately result in harm and higher cost to customers. Pursuant to N.C. Gen. Stat. § 132-1.2, the Company requests that the information marked “Confidential” be protected from public disclosure. The Company is filing all information designated as confidential under seal and will make the information available to other parties to this docket pursuant to an appropriate nondisclosure agreement.

Thank you for your assistance with this matter. Feel free to contact me should you have any questions.

Very truly yours,

/s/Mary Lynne Grigg

**BEFORE THE**

**NORTH CAROLINA UTILITIES COMMISSION**

**PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INCORPORATED**

**DOCKET NO. G-5, SUB 661**

**SECOND SUPPLEMENTAL DIRECT TESTIMONY**

**OF**

**ROSE M. JACKSON**

**JULY 24, 2023**

1 Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, BY WHOM YOU  
2 ARE EMPLOYED, AND IN WHAT CAPACITY.

3 A. My name is Rose M. Jackson. My business address is 220 Operation Way,  
4 Cayce, South Carolina. I am employed by Dominion Energy Services, Inc., as  
5 Director – Fuel Commodities.

6 Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?

7 A. Yes, I pre-filed direct testimony on June 1, 2023. I also filed supplemental  
8 direct testimony on June 16, 2023.

9 Q. WHAT IS THE PURPOSE OF YOUR SECOND SUPPLEMENTAL DIRECT  
10 TESTIMONY IN THIS PROCEEDING?

11 A. In my direct testimony and supplemental direct testimony, I testified regarding  
12 the status of the Mountain Valley Pipeline (“MVP”) mainline project, to which  
13 PSNC has subscribed for 250,000 dekatherms per day of firm transportation  
14 capacity. In my supplemental direct testimony, I testified that a law to raise the  
15 debt ceiling, known as the “Fiscal Responsibility Act of 2023,” had recently  
16 passed and that it intended to expedite the completion of MVP. I also testified  
17 regarding the Company’s plans to construct a second liquefied natural gas  
18 (“LNG”) facility. Since my supplemental testimony was filed, the Company  
19 has discussed with the Public Staff the economic analysis required by the North  
20 Carolina Utilities Commission’s (“Commission”) order in Docket No. G-5, Sub  
21 642. In my second supplemental testimony, I provide the economic analysis  
22 performed by the Company which supports PSNC’s decision to construct a two  
23 billion cubic feet (“Bcf”) LNG facility. I will also provide an update on the

1 Company's acquisition of an additional winter peaking contract.

2 Q. ARE YOU SPONSORING ANY EXHIBITS TO YOUR SECOND  
3 SUPPLEMENTAL DIRECT TESTIMONY?

4 A. Yes. I am including three exhibits:

- 5 ○ Jackson Second Supplemental Direct Exhibit 1 –Economic Analysis of  
6 New LNG Facility
- 7 ○ Confidential Jackson Second Supplemental Direct Exhibit 2 –  
8 Economic Analysis of New LNG Facility
- 9 ○ Jackson Second Supplemental Direct Exhibit 3 – Updated Design-Day  
10 Demand Requirements and Available Assets for Winter Seasons From  
11 2022-23 Through 2027-28

12 Each of these exhibits was prepared under my direction and control, and to the  
13 best of my knowledge all factual matters contained therein are true and accurate.

14 Q. PLEASE DESCRIBE THE ECONOMIC ANALYSIS CONTAINED IN  
15 CONFIDENTIAL JACKSON SECOND SUPPLEMENTAL DIRECT  
16 EXHIBIT 2.

17 A. The economic analysis contained in my Confidential Jackson Second  
18 Supplement Direct Exhibit 2 compares the cost of a 1.5 Bcf LNG facility versus  
19 a 2.0 Bcf facility. As stated in Jackson Second Supplemental Direct Exhibit 1,  
20 the 2.0 Bcf facility would only require incremental cost increases associated  
21 with the tank, the vaporization equipment and the Administrative & General  
22 and contingency expenses. This results in the 2.0 Bcf facility costing  
23 approximately 2.5% more than the 1.5 Bcf facility. With a cost differential of

1           only 2.5%, the 2.0 Bcf facility is the most prudent and cost-effective option.  
2           Confidential Exhibit 2 to this second supplemental testimony sets forth the  
3           specific cost differences between the two facilities.

4    Q.    WAS AN ECONOMIC ANALYSIS PERFORMED TO COMPARE THE  
5           PROPOSED LNG FACILITY TO OTHER CAPACITY ALTERNATIVES?

6    A.    No. As stated in my direct testimony, on pages 15-17:

7                   ... A traditional economic analysis of alternatives could not be  
8                   completed because long-term viable alternatives to the proposed  
9                   facility are not available in the similar timeframe as the LNG  
10                  project. Additionally, the operational constraints caused by  
11                  lower than historical pressures on Transco's system during  
12                  Winter Storm Elliott demonstrates the need for more on-system  
13                  supply, since the Company could not receive all the winter  
14                  peaking supply it had contracted for. Additional benefits of on-  
15                  system LNG include allowing PSNC to manage daily firm  
16                  demand swings in a reliable manner and mitigating the impact  
17                  of price spikes during periods of high demand.

18                  ... As I stated earlier, security of supply refers to the assurance  
19                  that gas will be available when needed for firm sales customers  
20                  and is the first and foremost criterion in PSNC's gas  
21                  procurement policy. The Company evaluated whether there  
22                  were alternatives to the proposed facility that would provide  
23                  security of supply to serve firm customers. PSNC determined  
24                  that there are currently no viable alternatives to meet security of  
25                  supply in the same timeframe as the new LNG facility. Short-  
26                  term peaking contracts are the most similar service to LNG to  
27                  meet peak demand, but they have become increasingly difficult  
28                  to acquire and are not a long-term solution. For example, PSNC  
29                  acquired a short-term contract from an LNG facility that  
30                  temporarily had excess availability, but as the demand continues  
31                  to rise, that LNG facility will not continue to have supply for  
32                  PSNC to acquire. Further, the current constraints on interstate  
33                  pipelines and lack of future firm transportation options  
34                  exacerbate the lack of short-term peaking options available to  
35                  meet demand. Additionally, as PSNC experienced in Winter  
36                  Storm Elliott, when pressure issues occurred on Transco, PSNC  
37                  could not receive the contracted supplies. Therefore, the  
38                  Company does not have long-term viable options that provide  
39                  reliable alternatives to the new LNG facility.

- 1 Q. WILL THE COMPANY PROVIDE UPDATES ON THE NEW LNG  
2 FACILITY?
- 3 A. Yes. The Company will continue to keep the Commission and Public Staff  
4 informed on the status as the project progresses.
- 5 Q. PLEASE UPDATE THE COMMISSION ON A RECENT WINTER  
6 PEAKING ACQUISITION.
- 7 A. Since I filed my supplemental direct testimony, PSNC has acquired 35,000  
8 dekatherms/ day of short-term peaking supply for the upcoming winter season.  
9 Accordingly, I am updating my original Jackson Direct Exhibit 1 as Jackson  
10 Second Supplemental Exhibit 3.
- 11 Q. DOES THIS CONCLUDE YOUR SECOND SUPPLEMENTAL DIRECT  
12 TESTIMONY?
- 13 A. Yes, it does.

**Public Service of North Carolina, Inc. d/b/a Dominion Energy North Carolina**

**Docket No. G-5, Sub 661**

**Economic Analysis of New LNG Facility**

This economic analysis of a new liquefied natural gas (“LNG”) facility has been prepared in response to the Commission’s order in Docket No. G-5, Sub 642 which stated, “That, as recommended by the Public Staff, in its 2023 annual review PSNC shall provide a detailed economic analysis for the Commission’s information of any new or incremental supply proposed to be constructed or procured, pursuant to the Sub 91 Order.” *Ordering Paragraph No.3*

The Company has engaged in several conversations with Public Staff to determine what information is needed to meet the requirements of the ordering paragraph above. Pursuant to the Commission’s Ordering Paragraph No. 3, the Company submits this analysis.

As noted in the direct testimony of Company witness Jackson in this docket, a traditional economic analysis of capacity alternatives could not be completed because long-term viable alternatives to the proposed LNG facility are not available in the similar timeframe as the LNG project. The Company has no viable alternatives to on-system LNG for the following reasons:

- Another FERC jurisdictional project, such as another interstate pipeline project or a FERC jurisdictional LNG facility like Pine Needle, could face the same obstacles and delays that Mountain Valley Pipeline (“MVP”) has encountered with its construction.
- Operational constraints caused by lower than historical pressures on Transco’s system during Winter Storm Elliott demonstrated the need for more on-system supply, since the Company could not receive all the winter peaking supply it had contracted for.
- Withdrawals from an on-system LNG facility do not require nominations of interstate pipeline capacity. PSNC is in control of its LNG dispatch, and it is not reliant on the interstate pipeline system.
- An on-system LNG facility also allows PSNC to manage daily firm demand swings in a reliable manner and mitigate the impact of price spikes during periods of high demand. LNG is the most flexible asset to meet firm customer demand in response to changing weather patterns, and it enables the Company to maintain pressure on its distribution system.

Since 2020, the Public Staff has shared PSNC’s concerns about the reserve margin deficit due to MVP’s ongoing delays and the cancellation of the Atlantic Coast Pipeline Project in July 2020. These developments have resulted in a negative reserve margin for PSNC of 72,212 dekatherms (“Dts”) for the upcoming winter season as demonstrated in the table below, which is Jackson Direct Exhibit 1 filed in this proceeding on June 1, 2023. The table also shows that PSNC’s design day demand is growing by approximately 20,000 Dts per year. Until long-term supply resources are secured, these reserve margin deficits will be met with short-term winter delivered gas peaking contracts. Therefore, the Company has accelerated the timeline for the development of an on-system LNG project that was originally planned for 2030. The accelerated development of the proposed LNG facility is the most certain path the Company can take to satisfy its growing reserve

margin deficit, particularly given that short-term peaking contracts are becoming more difficult to obtain.

The size of the LNG storage tank and the daily withdrawal capacity was based on the reserve margin deficit projected at the estimated in-service date of the new LNG facility plus the time for injections (winter of 2027-2028). The reserve margin deficit for the winter of 2027-2028 is projected to be 139,390 Dts. A 1.0 billion cubic feet (“Bcf”) LNG storage tank would provide a maximum daily withdrawal capacity of 100,000 Dts/day for 10 days. A 1.0 Bcf facility was not considered because the reserve margin deficit exceeded the withdrawal capacity at the time the plant would be available for withdrawals.

Jackson Direct Exhibit 1

**DESIGN-DAY DEMAND REQUIREMENTS (IN DTS) AND AVAILABLE ASSETS (IN DTS)**

**FOR WINTER SEASONS FROM 2022-23 THROUGH 2027-28**

		(1)	(2)	(3)	(4)	(5)	(6)
		2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
<b>Contracted Capacity*</b>							
Transco	FT	390,743	390,743	390,743	390,743	390,743	390,743
Eastern Gas**	FT	7,275	7,272	7,272	7,272	7,272	7,272
Subtotal		398,018	398,015	398,015	398,015	398,015	398,015
<b>Seasonal Capacity</b>							
Transco	Storage	33,218	33,218	33,218	33,218	33,218	33,218
Eastern Gas**	Storage	61,148	61,445	61,445	61,445	61,445	61,445
Columbia Gas**	Storage	35,063	35,052	35,052	35,052	35,052	35,052
East	Storage	48,861	48,458	48,458	48,458	48,458	48,458
Tennessee/Saltville**							
Subtotal		178,290	178,173	178,173	178,173	178,173	178,173
<b>Peaking Capacity</b>							
Transco	LGA	5,175	5,175	5,175	5,175	5,175	5,175
Pine Needle**	LNG	102,703	102,672	102,672	102,672	102,672	102,672
Cary Energy Center	LNG	100,000	100,000	100,000	100,000	100,000	100,000
Cove Point**	LNG	24,808	24,800	24,800	24,800	24,800	24,800
Short-Term Peaking Service	LNG	61,000	40,000	-	-	-	-
Subtotal		293,686	272,647	232,647	232,647	232,647	232,647
<b>Total</b>		869,993	848,835	808,835	808,835	808,835	808,835
<b>Design-Day Requirements</b>		874,220	881,047	897,382	914,019	930,965	948,225
<b>Surplus (Shortage)</b>		(4,227)	(32,212)	(88,547)	(105,184)	(122,130)	(139,390)
<b>Reserve Margin</b>		(0.48%)	(3.66%)	(9.87%)	(11.51%)	(13.12%)	(14.70%)

\* Does not include MVP capacity contracted for but not in service.

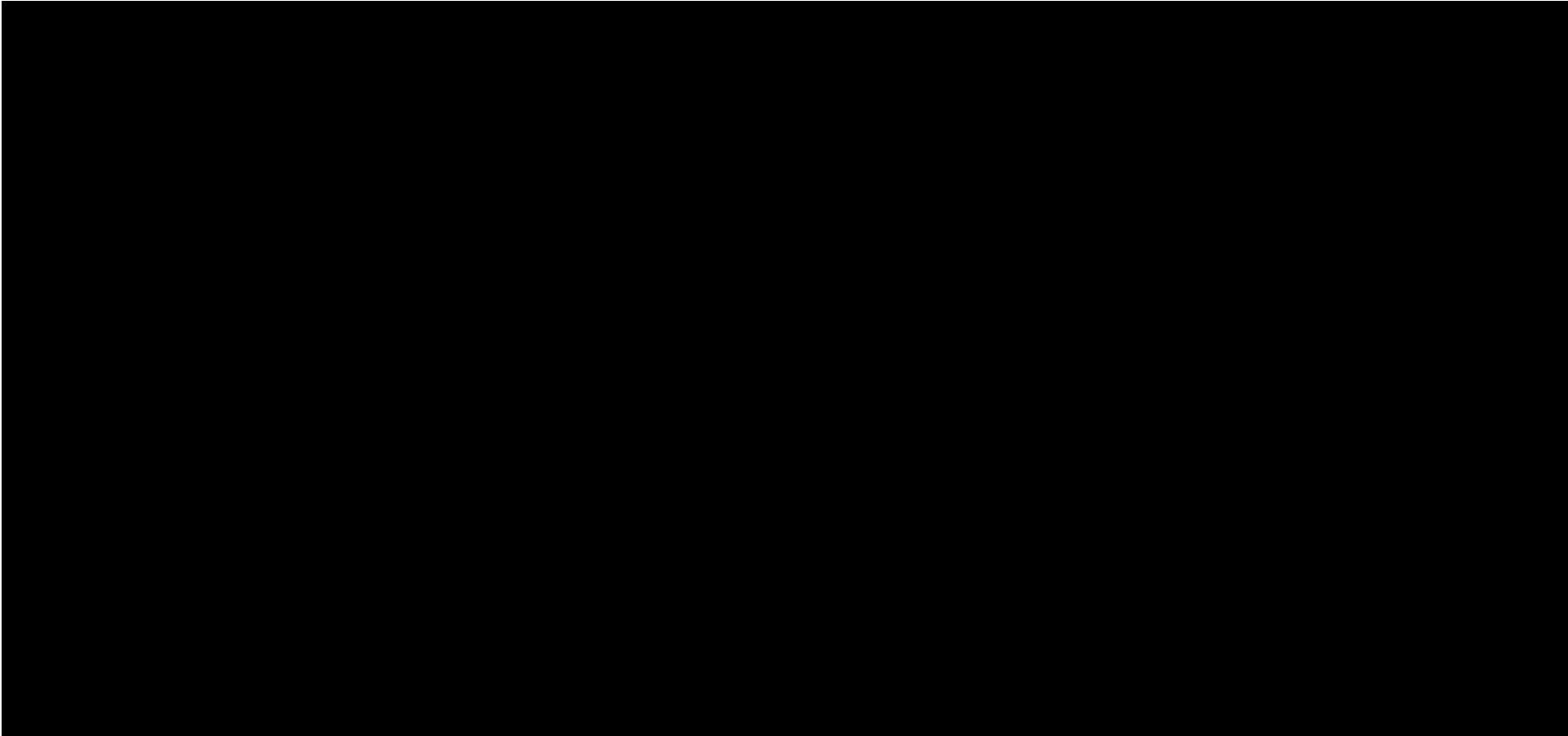
\*\* Adjusted to reflect changes in Transco fuel retainage.



A 1.5 Bcf LNG storage tank would provide a maximum daily withdrawal capacity of 150,000 Dts/day for 10 days; a 2.0 Bcf LNG storage tank would provide a maximum daily withdrawal capacity of 200,000 Dts/ day for 10 days. The cost estimates for these options are shown in the Confidential Jackson Second Supplemental Direct Exhibit 2.

Based on the reserve margin deficit of approximately 140,000 Dts in the winter of 2027-28, a 1.5 BCF facility would meet that need. However, a 2 Bcf facility will provide 33% more storage and greater vaporization capability than a 1.5 Bcf facility. The 2.0 Bcf facility will only require incremental cost increases associated with the tank, the vaporization equipment and the Administration & General and contingency expenses. This results in the 2.0 Bcf facility costing approximately 2.5% more than the 1.5 Bcf facility. With a cost differential of only 2.5%, the 2.0 Bcf facility is the most prudent and cost-effective option.

**CONFIDENTIAL INFORMATION REDACTED**



**DESIGN-DAY DEMAND REQUIREMENTS (IN DTs) AND AVAILABLE ASSETS (IN DTs)****FOR WINTER SEASONS FROM 2022-23 THROUGH 2027-28**

		(1)	(2)	(3)	(4)	(5)	(6)
		2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
<b>Contracted Capacity*</b>							
Transco	FT	390,743	390,743	390,743	390,743	390,743	390,743
Eastern Gas**	FT	7,275	7,272	7,272	7,272	7,272	7,272
Subtotal		398,018	398,015	398,015	398,015	398,015	398,015
<b>Seasonal Capacity</b>							
Transco	Storage	33,218	33,218	33,218	33,218	33,218	33,218
Eastern Gas**	Storage	61,148	61,445	61,445	61,445	61,445	61,445
Columbia Gas**	Storage	35,063	35,052	35,052	35,052	35,052	35,052
East Tennessee/Saltville**	Storage	48,861	48,458	48,458	48,458	48,458	48,458
Subtotal		178,289	178,173	178,173	178,173	178,173	178,173
<b>Peaking Capacity</b>							
Transco	LGA	5,175	5,175	5,175	5,175	5,175	5,175
Pine Needle**	LNG	102,703	102,672	102,672	102,672	102,672	102,672
Cary Energy Center	LNG	100,000	100,000	100,000	100,000	100,000	100,000
Cove Point**	LNG	24,808	24,800	24,800	24,800	24,800	24,800
Short-Term Peaking Service	LNG	61,000	75,000	-	-	-	-
Subtotal		293,686	307,647	232,647	232,647	232,647	232,647
<b>Total</b>		869,993	883,835	808,835	808,835	808,835	808,835
<b>Design-Day Requirements</b>		874,220	881,047	897,382	914,019	930,965	948,225
<b>Surplus (Shortage)</b>		(4,227)	2,788	(88,547)	(105,184)	(122,130)	(139,390)
<b>Reserve Margin</b>		-0.48%	0.32%	-9.87%	-11.51%	-13.12%	-14.70%

**CERTIFICATE OF SERVICE**

I hereby certify that copies of the foregoing public, redacted Second Supplemental Testimony and Exhibits of Rose M. Jackson, as filed in Docket No. G-5, Sub 661, were served electronically or via U.S. mail, first-class, postage prepaid, upon all parties of record.

This, the 24th day of July, 2023.

/s/Mary Lynne Grigg \_\_\_\_\_

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