



**NORTH CAROLINA
PUBLIC STAFF
UTILITIES COMMISSION**

October 5, 2021

Ms. A. Shonta Dunston, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

Re: Docket No. G-9, Sub 791 – Annual Review of Gas Costs

Dear Ms. Dunston:

In connection with the above-referenced docket, I transmit herewith for filing on behalf of the Public Staff the corrected joint testimony of James M. Singer, Utilities Engineer, Energy Division; Dustin R. Metz, Utilities Engineer, Energy Division; and Sonja R. Johnson, Staff Accountant, Accounting Division. This corrected testimony replaces the testimony filed on October 1, 2021.

The following corrections were made to the testimony:

- Corrected charts were inserted on Pages 7 (beginning after Line 4), 9, and 14; and
- Text was corrected on Pages 8, 10, 13-15.

By copy of this letter, we are forwarding copies to all parties of record.

Sincerely,

s/ Elizabeth D. Culpepper
Staff Attorney
elizabeth.culpepper@psncuc.nc.gov

Attachment

Executive Director (919) 733-2435	Communications (919) 733-5610	Economic Research (919) 733-2267	Legal (919) 733-6110	Transportation (919) 733-7766
Accounting (919) 733-4279	Consumer Services (919) 733-9277	Electric (919) 733-2267	Natural Gas (919) 733-4326	Water (919) 733-5610

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Oct 05 2021

PIEDMONT NATURAL GAS COMPANY, INC.

DOCKET NO. G-9, SUB 791

CORRECTED JOINT TESTIMONY OF

JAMES M. SINGER, DUSTIN R. METZ AND SONJA R. JOHNSON

ON BEHALF OF

THE PUBLIC STAFF – NORTH CAROLINA UTILITIES COMMISSION

OCTOBER 5, 2021

1 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND**
2 **PRESENT POSITION.**

3 A. My name is James M. Singer, and my business address is 430
4 North Salisbury Street, Raleigh, North Carolina. I am a Public
5 Utilities Engineer in the Public Staff's Energy Division. My
6 qualifications and experience are provided in Appendix A.

7 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
8 **PROCEEDING?**

9 A. The purpose of my testimony is to (1) present the results of my
10 review of the gas cost information filed by Piedmont in accordance
11 with N.C. Gen. Stat. § 62-133.4(c) and Commission Rule
12 R1-17(k)(6), (2) provide my conclusions regarding whether the
13 natural gas purchases made by Piedmont Natural Gas Company,
14 Inc. (Piedmont or Company) during the review period were
15 prudently incurred, and (3) provide my recommendation regarding
16 temporary rate increments or decrements.

1 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND**
2 **PRESENT POSITION.**

3 A. My name is Dustin R. Metz, and my business address is 430 North
4 Salisbury Street, Raleigh, North Carolina. I am a Public Utilities
5 Engineer in the Public Staff's Energy Division. My qualifications and
6 experience are provided in Appendix B.

7 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
8 **PROCEEDING?**

9 A. The purpose of my testimony is to present the results of my review
10 of Piedmont's design day demand requirements.

11 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND**
12 **PRESENT POSITION.**

13 A. My name is Sonja R. Johnson, and my business address is 430
14 North Salisbury Street, Raleigh, North Carolina. I am a Staff
15 Accountant with the Public Staff's Accounting Division. My
16 qualifications and experience are provided in Appendix C.

17 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
18 **PROCEEDING?**

19 A. The purpose of my testimony is to (1) present the results of my
20 review of the gas cost information filed by Piedmont in accordance
21 with N.C.G.S. § 62-133.4(c) and Commission Rule R1-17(k)(6), (2)
22 provide my conclusions regarding whether the gas costs incurred
23 by Piedmont during the 12-month review period ended May 31,

1 2021, were properly accounted for, (3) discuss the Public Staff's
2 investigation and conclusions regarding the prudence of Piedmont's
3 hedging activities during the review period, and (4) report on any
4 changes in the deferred gas cost reporting during the review period.

5 **Q. PLEASE EXPLAIN HOW THE PUBLIC STAFF CONDUCTED ITS**
6 **REVIEW.**

7 A. We reviewed the testimony and exhibits of the Company's
8 witnesses, the Company's monthly Deferred Gas Cost Account
9 reports, monthly financial and operating reports, the gas supply,
10 pipeline transportation, and storage contracts, the reports filed with
11 the Commission in Docket No. G-100, Sub 24A, and the
12 Company's responses to Public Staff data requests. The responses
13 to the Public Staff data requests contained information related to
14 Piedmont's gas purchasing philosophies, customer requirements,
15 and gas portfolio mixes. The Public Staff and the Company also
16 had several virtual meetings.

17 **Q. MR. SINGER, WHAT IS THE RESULT OF YOUR EVALUATION**
18 **OF PIEDMONT'S GAS COSTS?**

19 A. Based on my investigation and review of the data in this docket,
20 including information provided by the Company through data
21 requests and virtual discussions with the Company, I believe that
22 Piedmont's gas costs were prudently incurred.

1 **Q. WHAT OTHER ITEMS DID THE ENERGY DIVISION REVIEW?**

2 A. Even though the scope of Commission Rule R1-17(k) is limited to a
3 historical review period, the Public Staff's Energy Division also
4 considers other information received pursuant to the data requests
5 in order to anticipate the Company's requirements for future needs,
6 including design day estimates, forecasted gas supply needs,
7 projection of capacity additions and supply changes, and customer
8 load profile changes. Public Staff witness Metz will discuss his
9 review of the design day study.

10 **ACCOUNTING FOR AND ANALYSIS OF GAS COSTS**

11 **Q. MS. JOHNSON, HAS THE COMPANY PROPERLY ACCOUNTED**
12 **FOR ITS GAS COSTS DURING THE REVIEW PERIOD?**

13 A. Yes.

14 **Q. HOW DOES THE ACCOUNTING DIVISION GO ABOUT**
15 **CONDUCTING ITS REVIEW OF THE COMPANY'S**
16 **ACCOUNTING FOR GAS COSTS?**

17 A. Each month the Public Staff's Accounting Division reviews the
18 Deferred Gas Cost Account reports filed by the Company for
19 accuracy and reasonableness, and performs several audit
20 procedures on the calculations, including the following:

21 (1) Commodity Gas Cost True-Up – The actual commodity gas
22 costs incurred are verified, the calculations and data supporting the

1 commodity gas costs collected from customers are checked, and
2 the overall calculation is reviewed for mathematical accuracy.

3 (2) Fixed Gas Cost True-Up – The actual fixed gas costs
4 incurred are compared with pipeline tariffs and gas contracts, the
5 rates and volumes supporting the calculation of collections from
6 customers are verified, and the overall calculation is reviewed for
7 mathematical accuracy.

8 (3) Negotiated Losses – Negotiated prices for each customer
9 are reviewed to ensure that the Company does not sell gas to the
10 customer below the cost of gas to the Company or below the price
11 of the customer's alternative fuel.

12 (4) Temporary Increments and/or Decrements – Calculations
13 and supporting data are verified regarding the collections from
14 and/or refunds to customers that have occurred through the
15 Deferred Gas Cost Accounts.

16 (5) Interest Accrual – Calculations of the interest accrued on the
17 various deferred account balances during the month are verified in
18 accordance with N.C.G.S. § 62-130(e) and the Commission's Order
19 Approving Merger Subject to Regulatory Conditions and Code of
20 Conduct issued September 29, 2016, in Docket Nos. G-9, Sub 682,
21 E-2, Sub 1095, and E-7, Sub 1100 (Merger Order).

1 (6) Secondary Market Transactions – The secondary market
2 transactions conducted by the Company are reviewed and verified
3 to the financial books and records, asset management
4 arrangements, and other deferred account journal entries.

5 (7) Uncollectibles – The Company records a journal entry each
6 month in the Sales Customers' Only Deferred Account for the gas
7 cost portion of its uncollectibles write-offs. The calculations
8 supporting those journal entries are reviewed to ensure that the
9 proper amounts are recorded.

10 (8) Supplier Refunds – Unless ordered otherwise, supplier
11 refunds received by Piedmont should be flowed through to
12 ratepayers in the All Customers' Deferred Account or in certain
13 circumstances applied to the NCUC Legal Fund Reserve Account.
14 Documentation is reviewed to ensure that the proper amount is
15 credited to the correct account in a timely fashion.

16 **Q. HOW DO THE COMPANY'S FILED GAS COSTS FOR THE**
17 **CURRENT REVIEW PERIOD COMPARE WITH THOSE FOR THE**
18 **PRIOR REVIEW PERIOD?**

19 A. The Company filed total gas costs of \$296,068,509 per Tomlinson
20 Exhibit_(MBT-1), Schedule 1, for the current period as compared
21 with \$251,859,245 for the prior twelve-month period. The
22 components of the filed gas costs for the two periods are as
23 follows:

	12 Months Ended		Increase (Decrease)	% Change
	May 31, 2021	May 31, 2020		
Demand & Storage	\$140,936,239	\$152,562,398	(\$11,626,159)	(7.6%)
Commodity	189,219,220	148,405,851	\$40,813,369	27.5%
Other Costs	(\$34,086,950)	(\$49,109,003)	\$15,022,053	(30.6%)
Total	\$296,068,509	\$251,859,245	\$44,209,263	17.6%

1 **Q. PLEASE EXPLAIN ANY SIGNIFICANT INCREASES OR**
2 **DECREASES IN DEMAND AND STORAGE CHARGES.**

3 A. The Demand and Storage Charges for the current review period
4 and the prior twelve-month review period are as follows:

		Actual Amounts for the 12 Month Periods Ended		Increase (Decrease)	% Change
		April 30, 2021	April 30, 2020		
Transco	FT	\$101,790,787	\$118,589,799	(\$16,799,012)	(14.2%)
Transco	GSS	4,048,876	4,895,510	(846,634)	(17.3%)
Transco	ESS	3,014,126	3,542,584	(528,458)	(14.9%)
Transco	WSS	2,198,540	2,329,083	(130,543)	(5.6%)
Transco	LNG Service	650,182	334,575	315,607	94.3%
Columbia	Firm Storage Service	4,500,498	3,331,131	1,169,366	35.1%
Columbia	SST	6,637,721	5,224,055	1,413,666	27.1%
Columbia	FTS	3,343,945	2,703,458	640,487	23.7%
Columbia	No Notice FT	1,152,604	994,480	158,124	15.9%
Dominion	GSS	575,584	575,240	344	0.1%
Dominion	FT - GSS	960,704	1,118,689	(157,985)	(14.1%)
ETN	FT	4,645,440	3,693,600	951,840	25.8%
Texas Eastern		796,976	796,976	-	0.0%
Midwestern	FT	1,069,200	1,069,200	-	0.0%
Hardy	Storage	15,582,884	14,238,782	1,344,102	9.4%
Pine Needle	LNG	7,359,425	8,771,834	(1,412,409)	(16.1%)
Cardinal	FT Demand	6,206,644	6,229,434	(22,790)	(0.4%)
	LNG Processing	787,801	662,926	124,875	18.8%
	Property Taxes	18,559	39,697	(21,137)	(53.2%)
	Other	0	-	-	-
	NC/SC Costs Expensed	165,340,496	179,141,053	(13,800,556)	(7.7%)
	NC Demand Allocator	85.24%	85.16% ^{1/}		
	NC Costs Expensed	\$140,936,239	\$152,562,398	(\$11,626,159)	(7.6%)

^{1/} Weighted average demand allocator due to change in rate case effective November 1, 2019.

Note: Actual amounts lag one-month behind the accounting period. The May 31 review periods reflect actual amounts for the 12-month periods ended April 30.

1 The decreases in the **Transcontinental Gas Pipe Line Company,**
2 **LLC (Transco) Firm Transportation (FT), the Transco General**
3 **Storage Service (GSS), the Transco Eminence Storage Service**
4 **(ESS), and the Transco Washington Storage Service (WSS),**
5 ~~and Dominion FT—GSS~~ charges are due to decreases related to
6 Transco’s general rate case and fuel tracker filings, pursuant to
7 FERC Docket Nos. RP19-1638-000, RP20-575-000 and
8 RP21-579-000, effective November 1, 2019, April 1, 2020, and
9 April 1, 2021, respectively, which were in effect during the current
10 review period.

11 The increase in the **Columbia Firm Storage Service, Columbia**
12 **Storage Service Transportation (SST), Firm Transportation**
13 **Service (FTS), and No Notice Transportation Service (NTS)**
14 charges is due to a general rate case filing in RP20-1060-000,
15 effective February 1, 2021, and a Capital Cost Recovery
16 Mechanism compliance filing under its Modernization Program in
17 FERC Docket No. RP20-382-000, effective February 1, 2020.

18 The **East Tennessee Natural Gas (ETN)** charges increased due to
19 various FERC amendments involving filings with ETN and Texas
20 Eastern Transmission, LP (TETCO), including rate increases from a
21 TETCO Section 4 general rate case proceeding in FERC Docket
22 No. RP19-343-000, effective November 1, 2019.

1 The **Liquefied Natural Gas (LNG) Processing** charges are the
 2 electric bills associated with the liquefaction expense for
 3 Piedmont's two on-system LNG facilities. These charges increased
 4 due to a higher level of LNG withdrawal volumes when compared to
 5 the withdrawal volumes from the prior review period.

6 The decrease in **Property Taxes** for the current review period is
 7 due to an incorrectly coded property tax bill in January 2021 that
 8 has been reclassified into the next annual review period along with
 9 the associated interest.

10 **Q. PLEASE EXPLAIN THE CHANGE IN COMMODITY GAS COSTS.**

11 A. Commodity gas costs for the current review period and the prior
 12 twelve-month period are as follows:

	Actual Amounts for the 12 Month Periods Ended			
	April 30, 2021	April 30, 2020	Increase (Decrease)	% Change
Gas Supply Purchases	\$215,808,826	\$173,924,604	\$41,884,222	24.1%
Reservation Charges	4,314,080	4,128,438	185,642	4.5%
Storage Injections	(35,336,498)	(43,751,165)	8,414,667	(19.2%)
Storage Withdrawals	40,957,517	42,417,720	(1,460,203)	(3.4%)
Electric Compressor Costs	1,937,100	1,901,849	35,251	1.9%
Banked Gas Usage	(10,126)	5,744	(15,870)	(276.3%)
Cash Out Brokers (Long)	1,726,180	1,790,739	(64,559)	(3.6%)
Sales to Transport Customers/Cashout Shorts	(1,513,507)	(864,704)	(648,803)	75.0%
NC/SC Commodity Costs	\$227,883,572	\$179,553,225	\$48,330,347	26.9%
NC Commodity Costs	\$189,219,220	\$148,405,851	\$40,813,369	27.5%
NC Dekatherms Delivered	73,026,991	65,930,466	7,096,525	10.8%
NC Cost per Dekatherm	\$2.5911	\$2.2509	\$0.3401	15.1%

Note: Actual amounts lag one-month behind the accounting period. The May 31 review periods reflect actual amounts for the 12-month periods ended April 30.

1 **Gas Supply Purchases** increased by \$41,884,222 primarily due to
2 a higher level of wellhead gas prices in the current review period
3 compared to the prior twelve-month review period. In addition, there
4 was a **slightly** higher level of purchased volumes during the current
5 review period.

6 **Reservation Charges** are fixed or minimum monthly charges a
7 local distribution company (LDC) may pay a supplier in connection
8 with the supplier providing the LDC an agreed-upon quantity of gas,
9 regardless of whether the LDC takes it or not. The increase in
10 reservation charges reflects a higher level of volumes as well as the
11 market-driven increase in prices in the current review period as
12 compared to the prior review period.

13 The decrease in **Storage Injections** is primarily due to a lower cost
14 of gas supply injected into storage. The average cost of gas
15 injected into storage during the current review period was \$1.9560
16 per dekatherm (dt) as compared with \$2.1881 per dt for the prior
17 period. Piedmont injected 18,065,354 dts into storage in the current
18 review period as compared to 19,995,342 dts for the prior period.

19 The increase in **Storage Withdrawal charges** reflects both a lower
20 average cost of supply withdrawn from storage but higher volumes
21 withdrawn from storage. Piedmont's average cost of gas withdrawn
22 was \$2.1790 per dt for this review period as compared to \$2.5386

1 per dt in the prior period. Piedmont withdrew 18,796,497 dts from
2 storage in the current review period as compared to 16,709,344 dts
3 for the prior period.

4 The **Electric Compressor Costs** are associated with electric
5 compressors related to power generation contracts. There is no
6 impact on the deferred accounts since these costs are recovered
7 through the contract payments.

8 **Banked Gas** is the cost of gas associated with the month-end
9 volume imbalances that are not cashed out with customers.
10 Piedmont currently has four banked gas customers, all former
11 NCNG customers, who may exercise the right per contract to carry
12 forward their monthly volume imbalances instead of cashing out
13 monthly. The change in the banked gas represents the difference in
14 the cost of gas supply of the volume imbalances carried forward
15 from month to month.

16 **Cash Out Brokers (Long)** represents the purchases made by
17 Piedmont from brokers that brought too much gas to the city gate.
18 The reduction in Cash Out Brokers (Long) was due to the decrease
19 in volumes purchased during the current review period as
20 compared to the prior review period. During the current period, the
21 volumes purchased from Cash Out Brokers (Long) was 1,670,091,
22 while the previous period's volumes purchased was 1,853,141.

1 **Q. PLEASE EXPLAIN THE CHANGE IN OTHER GAS COSTS.**

2 A. Other gas costs for the current review period and the prior twelve-
3 month period are as follows:

	Actual Amounts for the 12 Month Periods Ended		
	April 30, 2021	April 30, 2020	Increase (Decrease)
Total Deferred Acct Activity COG Items	(\$16,411,813)	(\$29,025,681)	\$12,613,868
Actual vs. Estimate Reporting Month Adj.	2,440,975	(271,578)	2,712,553
Total Other Costs	(20,116,112)	(19,811,744)	(304,368)
Total NC Other Cost of Gas Expense	(\$34,086,950)	(\$49,109,003)	\$15,022,053

4 The **Total Deferred Acct Activity COG Items** reflect offsetting
5 journal entries for the cost of gas recorded in the Company's
6 Deferred Gas Cost Accounts during the review periods. This
7 amount includes offsetting journal entries for the commodity
8 true-up, fixed gas cost true-up, negotiated losses, and
9 increments/decrements.

10 The **Actual vs. Estimate Reporting Month Adj.** amounts result
11 from the Company's monthly accounting closing process. Each
12 month, the Company estimates its current month's gas costs for
13 financial reporting purposes and adjusts the prior month's estimate
14 to reflect the actual cost incurred for that month.

15 **Total Other Costs** are primarily the North Carolina ratepayers'
16 portion of capacity release margins and the allocation factor
17 differential for bundled sales. The allocation factor differential is due
18 to the utilization of the NC/SC sales allocation factor in the

1 commodity gas cost calculation and the demand allocation factor
2 utilized in the secondary market calculation.

3 **SECONDARY MARKET ACTIVITIES**

4 **Q. MS. JOHNSON, PLEASE SUMMARIZE THE COMPANY'S**
5 **SECONDARY MARKET ACTIVITIES DURING THE REVIEW**
6 **PERIOD.**

7 A. During the review period, the Company earned actual margins of
8 ~~\$45,467,481~~ ~~\$44,111,864~~ on secondary market transactions, and
9 credited the All Customers' Deferred Account in the amount of
10 ~~\$33,083,898~~ ~~\$34,078,140~~ ~~—(((\$44,111,864~~ ~~\$45,467,481~~ – 100%

11 Duke secondary market sales) x NC demand allocator x 75%

12 ratepayer sharing percentage) + (100% Duke secondary market

13 sales x NC demand allocator)) for the benefit of ratepayers, in

14 accordance with the Commission's Order Approving Stipulation

15 issued on December 22, 1995, in Docket No. G-100, Sub 67. This

16 dollar amount is slightly different from the amount recorded on

17 Tomlinson Exhibit_(MBT-1), Schedule 9, since the Company's

18 deferred account includes estimates for the May 2021 secondary

19 market transactions. Presented below is a chart that compares the

20 actual Total Company margins earned by Piedmont on the various

21 types of secondary market transactions in which it was engaged

22 during the review period and the prior review period.

	Actual Amounts for the 12 Month Periods Ended			
	April 30, 2021	April 30, 2020	Increase (Decrease)	% Change
Asset Management Arrangements	18,312,648	14,629,754	\$3,682,894	25.2%
Capacity Releases	15,465,438	17,017,876	(1,552,438)	(9.1%)
Off System Sales	10,333,778	7,244,162	3,089,616	42.6%
Total Company Margins on Secondary Market Transactions	\$44,111,864	\$38,891,792	\$5,220,072	13.4%

Note: Actual amounts lag one-month behind the accounting period. The May 31 review periods reflect actual amounts for the 12-month periods ended April 30.

1 **Asset Management Arrangements (AMAs)**, according to the
2 FERC,¹ are contractual relationships where a party agrees to
3 manage gas supply and delivery arrangements, including
4 transportation and storage capacity, for another party. Typically, a
5 shipper holding firm transportation and/or storage capacity on a
6 pipeline or multiple pipelines temporarily releases all or a portion of
7 that capacity along with associated gas production and gas
8 purchase agreements to an asset manager. The asset manager
9 uses that capacity to serve the gas supply requirements of the
10 releasing shipper, and, when the capacity is not needed for that
11 purpose, uses the capacity to make releases or bundled sales to
12 third parties.

13 Piedmont had seven AMAs during the current review period and
14 the prior review period. The **25.20%** ~~95.50%~~ increase in net
15 compensation from AMAs is due to an increase in the value of the

¹Promotion of a More Efficient Capacity Release Market, Order No. 712, 123 FERC ¶ 61,286, Paragraph 110 (June 19, 2008).

1 interstate pipeline and storage capacity that Piedmont has subject
2 to the AMAs.

3 **Capacity Releases** are the short-term postings of unutilized firm
4 capacity on the electronic bulletin board that are released to third
5 parties at a biddable price. The overall net compensation from
6 capacity release transactions primarily decreased due to a lower
7 level of released volumes for the current review period as
8 compared to the previous period.

9 **Off System Sales** on Piedmont's system are also referred to as
10 bundled sales. Bundled sales are gas supplies delivered to a third
11 party at a specified receipt point in the Transco market area.
12 Because bundled sales move gas from the production area to the
13 market area, these sales utilize pipeline capacity, and thus involve
14 both gas supply and capacity. During the current review period as
15 compared to the prior review period, the net compensation from off
16 system sales **increased decreased** by approximately **42.60%**
17 **16.30%** due to a **higher lower** level of bundled sales transactions
18 entered into during the current review period as compared to the
19 prior period, as well as **an increase decrease** in the value of the
20 transactions.

1 **Q. PLEASE PROVIDE A FURTHER DESCRIPTION OF**
2 **PIEDMONT'S OFF SYSTEM SALES TRANSACTIONS.**

3 A. During the current review period, Piedmont entered into multi-
4 month, monthly, and daily off system sales transactions with
5 approximately thirty-five shippers. 23.8% of these off system sales
6 transaction volumes consisted of daily transactions, 0% were
7 monthly transactions, and 76.2% were multi-month transactions.

8 **HEDGING ACTIVITIES**

9 **Q. MS. JOHNSON, PLEASE EXPLAIN HOW THE PUBLIC STAFF**
10 **CONDUCTED ITS REVIEW OF THE COMPANY'S HEDGING**
11 **ACTIVITIES.**

12 A. The Public Staff's review of the Company's hedging activities is
13 performed on an ongoing basis and includes the analysis and
14 evaluation of the following information:

- 15 (1) The Company's monthly hedging deferred account reports,
16 (2) Detailed source documentation, such as broker statements,
17 that provide support for the amounts spent and received by
18 the Company for financial instruments,
19 (3) Workpapers supporting the derivation of the maximum
20 hedge volumes targeted for each month,
21 (4) Periodic reports on the status of hedge coverage for each
22 month (Hedging Position Report),

- 1 (5) Periodic reports on the market values of the various financial
2 instruments used by the Company to hedge (Mark-to-Market
3 Report),
- 4 (6) The monthly Hedging Program Status Report,
- 5 (7) The monthly report reconciling the Hedging Program Status
6 Report and the hedging deferred account report,
- 7 (8) Minutes from meetings of Piedmont's Gas Market Risk
8 Committee,
- 9 (9) Minutes from the Board of Directors and its committees that
10 pertain to hedging activities,
- 11 (10) Reports and correspondence from the Company's external
12 and internal auditors that pertain to hedging activities,
- 13 (11) Hedging plan documents that set forth the Company's gas
14 price risk management policy, hedge strategy, and gas price
15 risk management operations,
- 16 (12) Communications with Company personnel regarding key
17 hedging events and plan modifications under consideration
18 by Piedmont's Gas Market Risk Committee, and
- 19 (13) Testimony and exhibits of the Company's witnesses in the
20 annual review proceeding.

1 **Q. WHAT IS THE STANDARD SET FORTH BY THE COMMISSION**
2 **FOR EVALUATING THE PRUDENCE OF A COMPANY'S**
3 **HEDGING DECISIONS?**

4 A. In its February 26, 2002, Order on Hedging in Docket No. G-100,
5 Sub 84 (Hedging Order), the Commission stated that the standard
6 for reviewing the prudence of hedging decisions is that the decision
7 "must have been made in a reasonable manner and at an
8 appropriate time on the basis of what was reasonably known or
9 should have been known at that time." Hedging Order, 92 NCUC 4,
10 11-12 (2002).

11 **Q. PLEASE DESCRIBE THE ACTIVITY REPORTED IN THE**
12 **COMPANY'S HEDGING DEFERRED ACCOUNT DURING THE**
13 **REVIEW PERIOD.**

14 A. The Company experienced net costs of \$927,346 in its Hedging
15 Deferred Account during the review period. This net cost amount in
16 the account at May 31, 2021, is composed of the following items:

Economic (Gain)/Loss - Closed Positions	(\$1,077,640)
Premiums Paid	1,777,740
Brokerage Fees & Commissions	39,586
Interest on Hedging Deferred Account	187,660
Hedging Deferred Account Balance	<u>\$927,346</u>

17 The Company proposed that the \$927,346 debit balance in the
18 Hedging Deferred Account at of the end of the review period be
19 transferred to its Sales Customers' Only Deferred Account.

1 The first item shown in the chart above, Economic (Gain)/Loss -
2 Closed Positions, is the gain on hedging positions that the
3 Company realized during the review period. In this case, the
4 Company did not exercise any hedging positions during the review
5 period due to lower natural gas prices. Premiums Paid is the
6 amount spent by the Company on futures and options positions
7 during the current review period for contract periods that closed
8 during the review period or that will close after May 31, 2021. As of
9 May 31, 2021, this amount includes call options purchased by
10 Piedmont for the May 2022 contract period, a contract period that is
11 12 months beyond the end of the current review period and 12
12 months beyond the May 2021 prompt month. Brokerage Fees and
13 Commissions are the amounts paid to brokers to complete the
14 transactions. The Interest on Hedging Deferred Account is the
15 amount accrued by the Company on its Hedging Deferred Account
16 in accordance with N.C.G.S. § 62-130(e) and the Merger Order,
17 effective October 1, 2017.

18 The hedging costs incurred by the Company during the review
19 period represent approximately 0.31% of total gas costs or \$0.013
20 per dt. The average monthly cost per residential customer for
21 hedging is approximately \$0.06 per dt.

22 **Q. DID THE COMPANY MODIFY ITS HEDGING PLAN DURING THE**
23 **REVIEW PERIOD?**

1 A. No. The Company did not modify its hedging plan during the
2 current review period.

3 **Q. MS. JOHNSON, WHAT IS YOUR CONCLUSION REGARDING**
4 **THE PRUDENCE OF THE COMPANY'S HEDGING ACTIVITIES?**

5 A. Based on the Public Staff's analysis and what was reasonably
6 known or should have been known at the time the Company made
7 its hedging decisions affecting the review period, as opposed to the
8 outcome of those decisions, I conclude that the Company's
9 decisions were prudent. I recommend that the \$927,346 debit
10 balance in the Company's Hedging Deferred Account as of the end
11 of the review period be transferred to Piedmont's Sales Customers'
12 Only Deferred Account.

13 **DESIGN DAY DEMAND REQUIREMENTS**

14 **Q. MR. METZ, HAVE YOU REVIEWED THE PUBLIC STAFF'S**
15 **JOINT TESTIMONY OF GEOFFREY M. GILBERT AND JULIE G.**
16 **PERRY FILED IN PIEDMONT'S PREVIOUS ANNUAL REVIEW**
17 **OF GAS COSTS PROCEEDING, DOCKET NO. G-9, SUB 771**
18 **(2020 ANNUAL REVIEW)?**

19 A. Yes.

20 **Q. DID YOU ASSIST PUBLIC STAFF WITNESS GILBERT WITH HIS**
21 **ANALYSIS OF THE COMPANY'S DESIGN DAY DEMAND**
22 **REQUIREMENTS?**

1 A. Yes. I am familiar with Piedmont's methodology.

2 **Q. WHAT AREAS OF CONCERN DID PUBLIC STAFF WITNESS**
3 **GILBERT RAISE RELATED TO THE COMPANY'S DESIGN DAY**
4 **DEMAND REQUIREMENTS IN THE 2020 ANNUAL REVIEW?**

5 A. Public Staff witness Gilbert listed the following concerns:

6 (1) Piedmont should continue to evaluate the demand
7 projections resulting from an extreme Design Day
8 Temperature (DDT) coupled with a reserve margin.

9 (2) The significant impact DDT has on the System Design Day
10 Firm Sendout² planning value.

11 (3) Baseload Firm Sales (FS)³ and Firm Transportation (FT)
12 should be properly isolated from one another in the
13 regression analysis, and appropriate multipliers applied to
14 FS and FT separately as appropriate.

15 **Q. DID PIEDMONT ADDRESS THE PUBLIC STAFF'S CONCERNS**
16 **FROM THE 2020 REVIEW?**

17 A. Yes.

²Over the years, Piedmont made some changes to its design day methodology such as changing its Design Day temperature from 11° to ~8.71° Fahrenheit for the review period of 2014-2015 after the Polar Vortex.

³The Public Staff's calculations add the five percent reserve margin to the Total Firm Sales Customers only.

1 **Q. HOW DID YOU CONDUCT YOUR REVIEW OF THE COMPANY'S**
2 **CURRENT DESIGN DAY DEMAND REQUIREMENTS AND DID**
3 **YOU REACH ANY CONCLUSIONS?**

4 A. I reviewed the Company's testimony and other information
5 submitted by the Company in response to data requests, and had
6 discussions with Company personnel. The Public Staff Energy
7 Division also performed independent calculations utilizing the
8 Company's assumptions, and, as a result, it appears that the
9 Company has adequate capacity to meet firm demand for the next
10 five years. The calculations are based on the Company's current
11 assumptions and maintaining a design day temperature of 8.69°
12 Fahrenheit,⁴ using a 65° Fahrenheit heating degree day (HDD)
13 standard, the incorporation of a five percent reserve margin, and
14 other extraneous planning conditions listed in detail in Company
15 witness Patton's prefiled direct testimony in this proceeding.

16 **Q. DO YOU HAVE FURTHER RECOMMENDATIONS TO THE**
17 **COMPANY'S DESIGN DAY DEMAND METHODOLOGY?**

18 A. Yes, but first I will clarify why the Public Staff is requesting further
19 refinements at this time. System planning is dynamic and, in my
20 professional experience, it is common to continuously review and
21 modify system inputs for utility planning.

⁴Testimony of Company witness Patton, page 12, line 10.

1 There are three items of moderate importance and two items of
2 lesser importance that I would like to bring to the Commission's
3 attention. First, I will discuss the three items of moderate
4 importance:

5 (1) FS customers are assigned total system Lost and
6 Unaccounted For (LAUF) gas. From a modeling and regression
7 perspective, this methodology inappropriately overstates FS
8 customer demand for planning purposes.

9 (2) Minor inconsistencies are introduced by applying design day
10 temperature averages to system-metered data on different time
11 intervals. A component of the design day regression is to find the
12 correlation between system usage and temperature; therefore, any
13 temperature data should be from the same time series (9 a.m. to 9
14 a.m. Central Clock Time, per NAESB "Gas Day") as the metered
15 usage data.

16 (3) The Company uses five years of historic information (system
17 usage and HDDs) to find a correlation between usage and weather.
18 Over the last five years, Piedmont's total number of customers, as
19 well as total demand, have increased. System usage should be
20 appropriately adjusted to account for customer growth in order to
21 correctly account for current system usage and forecast for future
22 planning.

1 The two items of lesser importance that I would like to highlight
2 involve the evaluation of non-linear regression and accounting of
3 weekend data. Non-linear regression could help account for how
4 different users of the system react differently to cold temperatures.
5 In addition, typically, there are only a few “extreme” or colder than
6 normal events in any five-year historic period, and non-linear
7 regression would account for these infrequent, extreme, “tail-end”
8 occurrences. In addition, based on my review, system demand for
9 weekends is different from weekdays. Inclusion of weekend data
10 (low usage) during an extreme, cold weather event may understate
11 system-planning demand.

12 The refinements I recommend are not an indication that the
13 Company has incorrectly performed future resource planning.
14 Rather, they are an incremental step to fine tune the design day
15 study and reduce embedded statistical error.

16 **Q. WHAT ARE YOUR RECOMMENDED REFINEMENTS RELATED**
17 **TO THE COMPANY’S DESIGN DAY DEMAND**
18 **METHODOLOGY?**

19 A. The Public Staff recommends that the Company consider the
20 following prior to its next annual review of gas costs proceeding:

21 (1) FS customers should only be assigned their percentage of
22 LAUF gas.

- 1 (2) Temperature data for system usage, weighted HDDs and the
2 design day temperature should be on or near the same time
3 interval and weighted by the same methodologies.
- 4 (3) Historical system usage data should be normalized for each
5 respective year's actual customer growth.
- 6 (4) Evaluation of linear versus non-linear regression.
- 7 (5) Evaluation of weekend usage and determine whether it is
8 appropriate to include typically low usage days for system
9 planning purposes.

10 The Public Staff has discussed these topics with Company
11 personnel, and the Company has agreed to work with the Public
12 Staff prior to the filing of the next annual review to consider and
13 possibly implement the refinements listed above.

14 **Q. MR. SINGER, DO YOU HAVE ANY COMMENTS REGARDING**
15 **THE COMPANY'S FUTURE CAPACITY RESOURCES?**

16 A. Yes. The Public Staff has had discussions with the Company
17 regarding its capacity resources. Piedmont witness Patton's
18 testimony acknowledged that the Company is addressing
19 replacement capacity in the 2024-2026 time frame for the 160,000
20 dts per day of year-round capacity the Company had contracted for
21 on the since-canceled Atlantic Coast Pipeline. Company witness
22 Patton also discussed Piedmont's additional peaking supply of

1 200,000 dts per day from the Robeson LNG facility for the
2 upcoming winter season and for future capacity planning.⁵ The
3 Public Staff has determined that at the completion of the Robeson
4 LNG facility, and if the Robeson LNG facility is filled as anticipated,⁶
5 the Company's plan has adequate capacity to cover its firm
6 customers over its five-year planning cycle.

7 The Public Staff recommends that the Company apply any updates
8 to its Design Day calculation methodology to its Design Winter
9 Load Duration Curve calculations. The Design Day calculation
10 discussed by Public Staff witness Metz creates the peak of the
11 Design Winter Load Duration Curve. The Company calculates the
12 remainder of the Design Winter Load Duration Curve using the
13 same methodologies, with input weather data from the 1976-1977
14 Winter period in the Company's service territory (the highest total
15 HDDs in the last 44 years). Such changes to the Design Day and
16 Design Winter Load Duration Curve calculation methodology may
17 impact the Company's capacity requirements.

18 **DEFERRED ACCOUNT BALANCES**

19 **Q. MS. JOHNSON, BASED ON YOUR REVIEW OF GAS COSTS IN**
20 **THIS PROCEEDING AND MR. SINGER'S OPINION THAT THE**

⁵Patton Exhibit (JCP-5C).

⁶Docket No. G-9, Sub 781, Rebuttal Testimony of Piedmont witness Adam Long.

1 **COMPANY'S GAS COSTS WERE PRUDENTLY INCURRED,**
 2 **WHAT ARE THE APPROPRIATE DEFERRED ACCOUNT**
 3 **BALANCES AS OF MAY 31, 2021?**

4 A. The appropriate All Customers' Deferred Account balance is a debit
 5 balance of \$2,102,343, owed by the customers to the Company, as
 6 filed by the Company.

7 The appropriate Sales Only Customers' Deferred Account balance
 8 is a credit balance of \$2,517,923, owed by the Company to the
 9 customers, as filed by the Company.

10 The Public Staff recommends transferring the debit balance of
 11 \$927,346 in the Hedging Deferred Account as of the end of the
 12 review period to the Sales Customers' Only Deferred Account. The
 13 recommended balance for the Sales Customers' Only Deferred
 14 Account as of May 31, 2021, is a net credit balance, owed to the
 15 Company, of \$1,590,577, determined as follows:

Balance per Exhibit MBT-1 Sch 8	(\$2,517,923)
Transfer of Hedging Balance	<u>927,346</u>
Balance per Public Staff	<u>(\$1,590,577)</u>

16 **Q. MR. SINGER, WHAT IS YOUR RECOMMENDATION**
 17 **REGARDING ANY PROPOSED INCREMENTS AND**
 18 **DECREMENTS?**

19 A. I have determined that the Company, per Tomlinson Exhibit_(MBT-
 20 3), properly and accurately calculated the temporary decrements

1 applicable to the Sales Customers' Only Deferred Account balance
2 as of May 31, 2021. I have also determined that the Company
3 properly and accurately calculated temporary increments applicable
4 to the All Customers' Deferred Account balance as of May 31,
5 2021, per Tomlinson Exhibit_(MBT-4). The Public Staff notes that
6 deferred account balances naturally vary between winter and
7 summer months since gas costs are typically over-collected during
8 the winter period when throughput is higher due to heating load and
9 under-collected during the summer when throughput is lower. I
10 recommend that the temporary decrement and increments
11 applicable to the Sales Customers' Only Deferred Account and the
12 All Customers' Deferred Account balances at May 31, 2021, as
13 proposed by Company witness Tomlinson, are appropriate to
14 implement at this time.

15 I also recommend that Piedmont continue to monitor the balances
16 in both the All Customers' and Sales Customers' Only Deferred
17 Accounts, and, if needed, file an application for authority to change
18 the benchmark commodity cost of gas or implement new temporary
19 increments or decrements through the Purchased Gas Adjustment
20 mechanism in order to keep the deferred account balances at
21 reasonable levels.

22 **Q. WHAT AFFECT DOES THIS CHANGE IN TEMPORARIES HAVE**
23 **ON THE TYPICAL RESIDENTIAL BILL?**

1 A. Assuming the Commission approves the implementation of the
2 temporary increments and decrements as explained above, the
3 typical residential customer will experience an annual increase of
4 \$0.13.⁷

5 **Q. MS. JOHNSON, DID PIEDMONT HAVE ANY CHANGES TO ITS**
6 **DEFERRED ACCOUNT REPORTING DURING THE REVIEW**
7 **PERIOD?**

8 A. No.

9 **Q. HAS THE COMPANY APPLIED THE CORRECT INTEREST**
10 **RATE IN THE DEFERRED ACCOUNTS?**

11 A. Yes. The Company's requirement regarding the appropriate interest
12 rate to use in the deferred gas cost accounts was established in the
13 Merger Order. Ordering Paragraph 9 of the Merger Order states
14 that

15 beginning with the month in which the merger closes,
16 Piedmont shall use the net-of-tax overall rate of return
17 from its last general rate case as the applicable
18 interest rate on all amounts over-collected or under-
19 collected from customers reflected in its Sales
20 Customers Only, All Customers, and Hedging
21 Deferred Gas Cost Accounts.

22 The Public Staff believes that the Company has complied with
23 Ordering Paragraph 9 of the Merger Order.

⁷This annual increase is based on normalized usage of 31,019,259 dts during the winter months and 8,286,562 dts during the summer months.

1 **Q. WHAT IS THE PUBLIC STAFF'S POSITION REGARDING**
2 **CHANGES IN THE INTEREST RATE APPLIED TO PIEDMONT'S**
3 **DEFERRED ACCOUNTS?**

4 A. The Public Staff believes that any changes in the overall rate of
5 return from a general rate case and in the federal and State income
6 tax rates should lead to changes in the interest rate. As stated
7 earlier in our testimony, each month the Public Staff's Accounting
8 Division reviews the Deferred Gas Cost Account reports filed by the
9 Company for accuracy and reasonableness, and performs several
10 audit procedures on the calculations, including, but not limited to,
11 the interest calculations. During the review period, June 1, 2020
12 through May 31, 2021, Piedmont utilized an interest rate of 6.66%
13 consistent with changes to the net-of-tax overall rate of return from
14 its general rate case in Docket No. G-9, Sub 743.

15 The Public Staff has reviewed the Company's interest rate
16 calculations and found that it was appropriate for Piedmont to
17 continue to use the 6.66% interest rate. The Public Staff will
18 continue to review the interest rate each month to determine if an
19 adjustment is needed.

20 **Q. DOES THIS CONCLUDE THE PUBLIC STAFF'S TESTIMONY?**

21 A. Yes.

Qualifications and Experience

JAMES M. SINGER

I am a graduate of Penn State University with a Bachelor of Science degree in Mechanical Engineering. Upon graduation, I worked as a Station Engineer at FirstEnergy Corp., responsible for maintaining, troubleshooting, and optimizing unit equipment and operations. I also held positions as a Project Engineer and as an Analyst in FirstEnergy's Commodity Operations group, where I performed benefit-cost analysis for projects throughout the company.

In 2008, I accepted a position with Progress Energy as a Boiler Engineer, responsible for operational and reliability issues for two top-tier boilers and performing boiler inspections across the Progress Energy fleet. After Progress Energy's merger with Duke Energy, I transitioned to a Project Manager role, focusing on gas turbine overhaul and generator repair projects.

In 2020, I worked as Consulting Engineer with Novo Nordisk on the DAPI-US project, the largest pharmaceutical manufacturing project in the world. I was responsible for reviewing turnover documentation from the general contractor and troubleshooting operating systems.

I joined the Public Staff's Energy Division in March 2021.

QUALIFICATIONS AND EXPERIENCE

DUSTIN R. METZ

Through the Commonwealth of Virginia Board of Contractors, I hold a current Tradesman License certification of Journeyman and Master within the electrical trade, awarded in 2008 and 2009, respectively. I graduated from Central Virginia Community College, receiving Associates of Applied Science degrees in Electronics and Electrical Technology (Magna Cum Laude) in 2011 and 2012 respectively, and an Associates of Arts in Science in General Studies (Cum Laude) in 2013. I graduated from Old Dominion University in 2014, earning a Bachelor of Science degree in Engineering Technology with a major in Electrical Engineering and a minor in Engineering Management. I completed engineering graduate course work in 2019 and 2020 at North Carolina State University.

I have over 12 years of combined experience in engineering, electromechanical system design, troubleshooting, repair, installation, commissioning of electrical and electronic control systems in industrial and commercial nuclear facilities, predictive statistical analysis, calibration, project planning and management, and general construction experience, including six years with direct employment with Framatome, where I provided onsite technical support, craft oversight, and engineer change

packages and participated in root cause analysis teams at commercial nuclear power plants, including plants owned by both Duke Energy and Dominion.

1 I joined the Public Staff in the fall of 2015. Since that time, I have
2 worked on electric and natural gas general rate cases, fuel cases, natural
3 gas annual reviews, applications for certificates of public convenience and
4 necessity, service and power quality, customer complaints, North
5 American Electric Reliability Corporation (NERC) Reliability Standards,
6 nuclear decommissioning, National Electric Safety Code (NESC)
7 Subcommittee 3 (Electric Supply Stations) member, avoided costs and
8 PURPA, interconnection procedures, and power plant performance
9 evaluations. I have also participated in multiple technical working groups
10 and been involved in other aspects of utility regulation.

QUALIFICATIONS AND EXPERIENCE

SONJA R. JOHNSON

I am a graduate of North Carolina State University with a Bachelor of Science and Master of Science degree in Accounting. I was initially an employee of the Public Staff from December 2002 until May 2004 and rejoined the Public Staff in January 2006.

I am responsible for analyzing testimony, exhibits, and other data presented by parties before this Commission. I have the further responsibility of performing and supervising the examinations of books and records of utilities involved in proceedings before the Commission and summarizing the results into testimony and exhibits for presentation to the Commission.

Since initially joining the Public Staff in December 2002, I have filed testimony or affidavits in several water and sewer general rate cases. I have also filed testimony in applications for certificates of public convenience and necessity to construct water and sewer systems and noncontiguous extension of existing systems. My experience also includes filing affidavits in several fuel clause rate cases and Renewable Energy and Energy Efficiency Portfolio Standard (REPS) cost recovery cases for the utilities currently organized as Duke Energy Carolinas, LLC, Duke

Energy Progress, LLC, and Virginia Electric and Power Company d/b/a Dominion North Carolina Power.

While away from the Public Staff, I was employed by Clifton Gunderson, LLP. My duties included the performance of cost report audits of nursing homes, hospitals, federally qualified health centers, intermediate care facilities for the mentally retarded, residential treatment centers and health centers.