NORTH CAROLINA
PUBLIC STAFF
UTILITIES COMMISSION

October 1, 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 joint testimony of James M. Singer, Utilities Engineer, Energy Division; Dustin M. Metz, Utilities Engineer, Energy Division; and Sonja R. Johnson, Staff Accountant, Accounting Division.

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

PIEDMONT NATURAL GAS COMPANY, INC.

DOCKET NO. G-9, SUB 791

JOINT TESTIMONY OF

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

ON BEHALF OF

THE PUBLIC STAFF – NORTH CAROLINA UTILITIES COMMISSION

OCTOBER 1, 2021

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

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

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

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

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

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

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

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

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

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

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

A. The purpose of my testimony is to (1) present the results of my review of the gas cost information filed by Piedmont in accordance with N.C.G.S. § 62-133.4(c) and Commission Rule R1-17(k)(6), (2) provide my conclusions regarding whether the gas costs incurred by Piedmont during the 12-month review period ended May 31, 2021, were properly accounted for, (3) discuss the Public Staff's investigation and conclusions regarding the prudence of Piedmont's hedging activities during the review period, and (4) report on any changes in the deferred gas cost reporting during the review period.

Q. PLEASE EXPLAIN HOW THE PUBLIC STAFF CONDUCTED ITS REVIEW.

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

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

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

Q. WHAT OTHER ITEMS DID THE ENERGY DIVISION REVIEW?

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

ACCOUNTING FOR AND ANALYSIS OF GAS COSTS

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

A. Yes.

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

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

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

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

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

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

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

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

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

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

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

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

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

	12 Months Ended			
			Increase	%
	May 31, 2021	May 31, 2020	(Decrease)	Change
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%

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

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

		Actual Amounts for the 12 Month Periods Ended			
				Increase	%
		April 30, 2021	April 30, 2020	(Decrease)	Change
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	1,169,367	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%
Col Gulf	FTS	-	-	0	-
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%
Midwestern	FT	1,866,176	1,866,176	0	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	0	0	
NC/SC Costs Expensed		165,340,496	179,141,052	(13,800,556)	-7.7%
NC Demand Allocator		85.24%	85.24%		
NC Costs Expensed		$140,936,239	$152,699,833	($11,763,594)	-7.7%

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.

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

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

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

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

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

Q. PLEASE EXPLAIN THE CHANGE IN COMMODITY GAS COSTS.

A. Commodity gas costs for the current review period and the prior 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	0	0	0	
NC/SC Commodity Costs	$229,397,079	$180,417,929	$48,979,150	27.1%
NC Commodity Costs	$189,219,220	$233,172,219	($43,952,999)	(18.9%)
NC Dekatherms Delivered	73,026,991	72,259,869	767,122	1.1%
NC Cost per Dekatherm	$2.5911	$3.2269	($0.6358)	(19.7%)

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.

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

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

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

The increase in **Storage Withdrawal charges** reflects both a lower average cost of supply withdrawn from storage but higher volumes withdrawn from storage. Piedmont's average cost of gas withdrawn was $2.1790 per dt for this review period as compared to $2.5386 per dt in the prior period. Piedmont withdrew 18,796,497 dts from storage in the current review period as compared to 16,709,344 dts for the prior period.

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

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

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

Q. PLEASE EXPLAIN THE CHANGE IN OTHER GAS COSTS.

A. Other gas costs for the current review period and the prior twelve-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

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

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

Total Other Costs are primarily the North Carolina ratepayers' portion of capacity release margins and the allocation factor differential for bundled sales. The allocation factor differential is due to the utilization of the NC/SC sales allocation factor in the commodity gas cost calculation and the demand allocation factor utilized in the secondary market calculation.

SECONDARY MARKET ACTIVITIES

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

A. During the review period, the Company earned actual margins of $45,467,481 on secondary market transactions, and credited the All Customers' Deferred Account in the amount of $34,078,140 (($45,437,520 – 100% Duke secondary market sales) x NC demand allocator x 75% ratepayer sharing percentage) + (100% Duke secondary market sales x NC demand allocator)) for the benefit of ratepayers, in accordance with the Commission's Order Approving Stipulation issued on December 22, 1995, in Docket No. G-100, Sub 67. This dollar amount is slightly different from the amount recorded on Tomlinson Exhibit_(MBT-1), Schedule 9, since the Company's deferred account includes estimates for the May 2021 secondary market transactions. Presented below is a chart that compares the actual Total Company margins earned by Piedmont on the various types of secondary market transactions in which it was engaged during the review period and the prior review period.

	Actual Amounts for the 12 Month Periods Ended			
			Increase	%
	April 30, 2021	April 30, 2020	(Decrease)	Change
Asset Management Arrangements	18,312,648	$9,367,896	$8,944,752	95.5%
Capacity Releases	16,921,055	15,323,757	1,597,298	10.4%
Off System Sales	10,233,778	12,222,116	(1,988,338)	(16.3%)
Total Company Margins on Secondary Market Transactions	$45,467,481	$36,913,769	$8,553,711	23.2%

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.

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

Piedmont had seven AMAs during the current review period and the prior review period. The 95.50% increase in net compensation from AMAs is due to an increase in the value of the interstate

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

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

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

Off System Sales on Piedmont's system are also referred to as bundled sales. Bundled sales are gas supplies delivered to a third party at a specified receipt point in the Transco market area. Because bundled sales move gas from the production area to the market area, these sales utilize pipeline capacity, and thus involve both gas supply and capacity. During the current review period as compared to the prior review period, the net compensation from off system sales decreased by approximately 16.30% due to a lower level of bundled sales transactions entered into during the current review period as compared to the prior period, as well as a decrease in the value of the transactions.

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

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

HEDGING ACTIVITIES

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

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

(1) The Company's monthly hedging deferred account reports,

(2) Detailed source documentation, such as broker statements, that provide support for the amounts spent and received by the Company for financial instruments,

(3) Workpapers supporting the derivation of the maximum hedge volumes targeted for each month,

(4) Periodic reports on the status of hedge coverage for each month (Hedging Position Report),

(5) Periodic reports on the market values of the various financial instruments used by the Company to hedge (Mark-to-Market Report),

(6) The monthly Hedging Program Status Report,

(7) The monthly report reconciling the Hedging Program Status Report and the hedging deferred account report,

(8) Minutes from meetings of Piedmont's Gas Market Risk Committee,

(9) Minutes from the Board of Directors and its committees that pertain to hedging activities,

(10) Reports and correspondence from the Company’s external and internal auditors that pertain to hedging activities,

(11) Hedging plan documents that set forth the Company’s gas price risk management policy, hedge strategy, and gas price risk management operations,

(12) Communications with Company personnel regarding key hedging events and plan modifications under consideration by Piedmont’s Gas Market Risk Committee, and

(13) Testimony and exhibits of the Company’s witnesses in the annual review proceeding.

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

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

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

A. The Company experienced net costs of $927,346 in its Hedging Deferred Account during the review period. This net cost amount in 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	$927,346

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

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

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

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

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

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

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

<u>DESIGN DAY DEMAND REQUIREMENTS</u>

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

A. Yes.

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

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

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

A. Public Staff witness Gilbert listed the following concerns:

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

(2) The significant impact DDT has on the System Design Day Firm Sendout[2] planning value.

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

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

A. Yes.

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[2]Over 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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(2) Temperature data for system usage, weighted HDDs and the design day temperature should be on or near the same time interval and weighted by the same methodologies.

(3) Historical system usage data should be normalized for each respective year's actual customer growth.

(4) Evaluation of linear versus non-linear regression.

(5) Evaluation of weekend usage and determine whether it is appropriate to include typically low usage days for system planning purposes.

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

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

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

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

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

DEFERRED ACCOUNT BALANCES

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

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[5]Patton Exhibit_(JCP-5C).
[6]Docket No. G-9, Sub 781, Rebuttal Testimony of Piedmont witness Adam Long.

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

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

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

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

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

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

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

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

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

A. Assuming the Commission approves the implementation of the temporary increments and decrements as explained above, the typical residential customer will experience an annual increase of $0.13.[7]

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

A. No.

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

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

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

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

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[7]This 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.

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

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

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

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

A. Yes.

APPENDIX A

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.

APPENDIX B

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.

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

APPENDIX C

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.