

**Before the  
North Carolina Utilities Commission**

**Docket No. G-9, Sub 710**

**Annual Review of Gas Costs Pursuant to G.S. 62-133.4(c)  
and Commission Rule R1-17(k)(6)**

**Testimony  
of  
Sarah E. Stabley**

**On Behalf Of  
Piedmont Natural Gas Company, Inc.**



**August 1, 2017**

1 **Q. Please state your name and your business address.**

2 A. My name is Sarah E. Stabley. My business address is 4720 Piedmont Row  
3 Drive, Charlotte, North Carolina.

4 **Q. By whom and in what capacity are you employed?**

5 A. I am employed by Piedmont Natural Gas Company, Inc., (“Piedmont” or the  
6 “Company”) as the Director of Gas Supply, Scheduling & Optimization.

7 **Q. Please describe your educational and professional background.**

8 A. I graduated from Queens University of Charlotte in May of 2004 with a  
9 Bachelor of Arts Degree in Business Administration. I joined Piedmont as a  
10 Collector/Meter Reader in our field operations in December of 1998. In  
11 March 2001 I took a position in Gas Control as a Schedule Confirmation  
12 Analyst. In November 2004 I was hired as a Gas Supply Representative in  
13 the Gas Supply department. In 2008 I was promoted to Manager of Gas  
14 Supply & Wholesale Marketing. In 2013 I was promoted to Director of Gas  
15 Supply, Scheduling & Optimization.

16 **Q. Please describe the scope of your present responsibilities for the**  
17 **Company.**

18 A. My current major responsibilities are supervision of long and short-term  
19 purchasing of gas supply, scheduling of gas purchased and sold, the  
20 optimization of our interstate pipeline transportation, storage, and gas supply  
21 assets, and the administration of the Company’s Hedging Plan.

22 **Q. Have you previously testified before this Commission or any other**  
23 **regulatory authority?**

1 A. Yes. I have testified in Public Service Commission of South Carolina  
2 Prudence Hearings in Docket Nos. 2012-4-G, 2013-4-G, 2014-4-G, 2015-4-  
3 G, 2016-4-G, and 2017-4-G and in North Carolina Utilities Commission  
4 Annual Review of Gas Cost Hearings in Docket Nos. G-9, Sub 633 in 2013,  
5 G-9, Sub 653 in 2014, G-9, Sub 673 in 2015, and G-9, Sub 690 in 2016.

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

7 A. This testimony is in response to Commission Rule R1-17(k)(6), which  
8 provides for an annual review of Piedmont's gas costs recovered from all its  
9 customers that it served during the review period. I will also discuss the  
10 Company's hedging activity during the review period.

11 **Q. What is the period of review in this docket?**

12 A. The review period is June 1, 2016 through May 31, 2017.

13 **Q. Please explain the Company's gas purchasing policies.**

14 A. The Company has previously utilized and continues to maintain a "best cost"  
15 gas purchasing policy. This policy consists of five main components: 1) the  
16 price of the gas, 2) the security of the gas supply, 3) the flexibility of the gas  
17 supply, 4) gas deliverability, and 5) supplier relations. As all of these  
18 components are interrelated, we continue to weigh the relative importance of  
19 each of these factors when developing the overall gas supply portfolio to meet  
20 the needs of our customers.

21 **Q. Please describe each of the five components.**

- 1 A. 1) The “price of the gas” refers to the final cost of gas delivered to the  
2 Company’s city gates. The majority of the Company’s supply purchases take  
3 place at “pooling points” or at interconnects into the pipeline on which the  
4 Company holds firm transportation capacity rights. In the case of “bundled”  
5 city gate supply purchases, the Company may pay the gas supplier an all-  
6 inclusive price that covers the cost of gas, fuel and transportation charges.  
7 The use of storage services may add additional injection, withdrawal, and  
8 related fuel charges to the city gate cost of gas. In order to accurately assess  
9 prices at a comparable transaction point, the Company evaluates purchase  
10 prices at the receipt point and adds the applicable fuel and transportation costs  
11 associated with delivery to our pipeline city gate points.
- 12 2) “Security of gas supply” refers to the assurances that the supply of gas will  
13 be available when required. It is imperative to maintain a high level of supply  
14 security for the Company’s firm customers. Security of gas supply is less  
15 important for our interruptible customers whose service is subject to  
16 interruption in order to provide service to Piedmont’s firm customers. Fixed  
17 supply reservation fees are generally required, in addition to the commodity  
18 cost of gas, in order to contract for and reserve firm gas supplies. In addition,  
19 the geographic source of supply, the nature of the supplier’s portfolio of gas  
20 supplies, and negotiated contract terms must be considered when evaluating  
21 the level of supply security. Thus, the security of gas supply is interrelated

1 with the price of gas as well as other components of the Company's "best  
2 cost" purchasing policy.

3 3) "Flexibility of gas supply" refers to our ability to adjust the volume of a  
4 particular supply contract as operating and market conditions change. For  
5 example, the demand of firm heat-sensitive customers will vary depending on  
6 the weather conditions. Interruptible customers will vary their level of  
7 purchases depending on the price of alternate fuels and the demand for  
8 product in their own industry. Thus, the Company must arrange a portfolio  
9 of gas supplies and storage services flexible enough to meet the daily and  
10 monthly "swings" in demand. Contractual "swing rights" are implemented  
11 through monthly and daily elections with gas suppliers and through injections  
12 into and withdrawals out of storage.

13 4) "Gas deliverability" refers to the ability to deliver the Company's gas  
14 supplies at the city gate through reliable transportation and storage capacity  
15 arrangements. The interstate pipeline industry has created a complex system  
16 of multiple pipeline and storage service combinations. Transportation  
17 arrangements can involve *intrastate* pipeline transportation, interstate  
18 pipeline transportation, interstate pipeline storage arrangements, interstate  
19 pipeline lateral lines, interstate pipeline pooling services, and interstate  
20 pipeline balancing and peaking services. The marketplace for pipeline  
21 capacity service is limited, with little to no unused capacity available during  
22 periods of high demand conditions such as extreme cold or hot weather

1 conditions. Consequently, it is important that we secure and maintain firm  
2 transportation and storage capacity rights to ensure the deliverability of our  
3 gas supplies to meet the design day, seasonal, and annual needs of our  
4 customers. Pipeline transportation and storage capacity contracts require the  
5 payment of fixed demand charges to reserve firm transportation and/or  
6 storage entitlements. The Company is active in proceedings at the Federal  
7 Energy Regulatory Commission (“FERC”) not only with respect to the level  
8 of pipeline charges under these contracts, but also the tariff terms and  
9 conditions that apply to these pipeline services.

10 5) “Supplier relations” refers to the dependability, integrity and flexibility of  
11 a particular gas supplier. We contract with gas suppliers who have a  
12 reputation of honoring their contractual commitments and have proven  
13 themselves as reliable suppliers. Conversely, we avoid suppliers which have  
14 a reputation of defaulting on contract obligations or who unilaterally interpret  
15 contracts to their advantage. We prefer to deal with suppliers who are  
16 constantly looking for ways to improve service and offer “win-win” solutions  
17 for meeting customer needs.

18 **Q. Please describe the arrangements under which the Company purchases**  
19 **gas.**

20 **A.** The Company purchases gas supplies under a diverse portfolio of contractual  
21 arrangements with a number of gas producers and marketers. In general,  
22 under the Company’s firm gas supply contracts, the Company may pay

1 negotiated reservation fees for the right to reserve and call upon firm supply  
2 service up to the maximum daily contract quantity (elected either on a  
3 monthly or daily basis), with market-based commodity prices. These market-  
4 based commodity prices, to which the Company's gas supply contracts refer,  
5 are published daily and monthly in industry trade publications. These firm  
6 contracts typically range in term from one month to four years. Some of these  
7 contracts are for winter only (peaking or seasonal) service, summer only  
8 (peaking or seasonal) service, or 365-day (annual) service. Firm gas supplies  
9 are purchased for reliability and security of service. The reservation fees  
10 associated with firm gas supplies may vary according to the amount of  
11 flexibility built into the contract, with daily swing service usually being more  
12 expensive than monthly baseload service. Generally, prior to or when  
13 existing supply contracts expire, requests for proposals ("RFPs") may be sent  
14 to potential suppliers, their responses evaluated, and firm gas supplies are then  
15 contracted with suppliers whose proposals best fulfill the Company's "best  
16 cost" purchasing policy.

17 The Company also purchases gas supplies in the spot market under contract  
18 terms of one month or less. These contracts provide less supply security and,  
19 as a result, the Company relies on these contracts primarily for interruptible  
20 or spot markets during off-peak periods when secondary supplies are more  
21 abundant and for supplemental system balancing requirements. Because of  
22 the nature of spot contracts, these supplies do not command reservation fees

1 and are priced at a market rate, generally by reference to an industry index or  
2 at negotiated fixed prices.

3 **Q. How does the combination of the five factors described above determine**  
4 **the nature of the supply and capacity contracts under your “best cost”**  
5 **policy?**

6 A. Under our “best cost” policy, we secure and maintain a supply portfolio that  
7 is in balance with the requirements of our sales customers. Because our firm  
8 sales customers must have secure and reliable gas supply, we meet the need  
9 of our firm sales customers’ demand primarily with long-term firm supply,  
10 transportation, storage, and peaking service contracts. The temperature  
11 sensitivity of our firm customers necessitates that flexibility of supply and  
12 storage also be provided. As mentioned earlier, firm gas supply contracts  
13 demand a premium, typically in the form of fixed reservation fees. Firm  
14 supply contracts with flexible swing service entitlements will command a  
15 higher reservation fee than baseload arrangements. Because our interruptible  
16 customers are more price sensitive and require less supply security, we supply  
17 these customers with off-peak firm gas supply and transportation services  
18 when the firm customers’ demand declines and through the purchase of gas  
19 supplies in the spot market.

20 In short, before entering into any agreement to purchase gas supply, pipeline  
21 transportation capacity, or storage capacity, we carefully consider the  
22 requirement for the supply and weigh the five “best cost” factors (price,

1 security, deliverability, flexibility, and supplier relations). A great deal of  
2 judgment is required when weighing these factors and to help us exercise this  
3 judgment, we keep informed about all aspects of the natural gas industry. We  
4 intervene in all major FERC proceedings involving our pipeline transporters,  
5 stay in constant contact with our existing and potential suppliers, monitor gas  
6 prices on a real-time basis, subscribe to industry literature, follow supply and  
7 demand developments, and attend industry seminars.

8 **Q. What is your greatest challenge in applying your “best cost” gas**  
9 **purchasing policy?**

10 A. Since most major gas supply decisions require a considerable degree of  
11 planning and must be made a year or more in advance of service, our greatest  
12 challenge is dealing with future uncertainties in a dynamic global, national,  
13 and regional energy market. Future demand for gas is affected by economic  
14 conditions, customer conservation efforts, weather patterns, and regulatory  
15 policies. In addition, the future availability and pricing of gas supplies will  
16 be affected by overall end-user demand, oil and gas exploration and  
17 development, pipeline expansion and storage projects, and regulatory policies  
18 and approvals.

19 **Q. Please explain the Company’s position regarding the current U.S. supply**  
20 **situation.**

21 A. For much of the first decade of this Century, futures pricing of natural gas  
22 reflected by the NYMEX was extremely volatile. Peak pricing for futures

1 contracts occurred in July 2008 when contracts for gas to be delivered during  
2 January 2009 sold for \$14.516 per dekatherm. Due to the significant  
3 quantities of shale gas that have become available to the market, the cost of  
4 gas in the production areas has declined dramatically. It is the Company's  
5 expectation that some volatility will remain in the physical markets,  
6 particularly related to force majeure type events, interstate pipeline capacity  
7 markets, and/or significant changes in demand, but that the dramatic swings  
8 previously seen in the futures market are not likely to recur with the same  
9 regularity or intensity so long as shale gas supplies remain abundant and  
10 regulatory policies remain favorable for gas and oil exploration. Another  
11 factor to consider in the U.S. supply situation is the exportation of LNG.  
12 Approvals of LNG export terminals, applications for trade with Free Trade  
13 Agreement and non-Free Trade Agreement countries, and to what extent  
14 exportation may impact gas prices are being evaluated. Nevertheless, market  
15 experts believe that future LNG exports would be adequately served by shale  
16 supplies and that while there is a reasonable expectation of an increase in gas  
17 costs, the anticipated effect is marginal.

18 **Q. Please explain the factors that the Company evaluates in determining the**  
19 **pricing basis for its gas supply contracts. Please discuss the various**  
20 **pricing alternatives available, such as fixed prices, monthly market**  
21 **indexing and daily spot market pricing and describe how supplier**

1        **reservation charges and discounts or premiums from market prices enter**  
2        **into the evaluation.**

3        A.    The Company has various pricing options available to it when developing its  
4        gas supply portfolio. These options include monthly market indexing, daily  
5        spot pricing, and fixed pricing. Pricing for gas contracted for a term of one  
6        month or longer typically refer to a monthly or daily index as published by  
7        industry trade publications. Prices for daily spot deals may refer to a daily  
8        index or a negotiated fixed price.

9        The reservation fee the Company pays for each contract in its firm supply  
10       portfolio is dependent upon the pricing options chosen and the supply  
11       flexibility requirements associated with each contract. Reservation fees are  
12       generally lower for baseload supplies (purchased at a constant volume for the  
13       entire month, season or year) and higher if swing service is required.  
14       Reservation fees also vary depending on the type of swing service being  
15       provided. Examples of factors which affect the cost of swing service are: 1)  
16       the number of days of swing required; 2) the volume of swing allowed; 3)  
17       commodity pricing at first of the month indices versus daily spot pricing; 4)  
18       first of the month keep whole pricing; 5) next day versus intraday swing  
19       capabilities; and 6) location of the supply being purchased.

20       The Company considers its anticipated load and swing requirements under  
21       various demand scenarios, contemplates the factors listed above and makes a  
22       “best cost” purchasing decision.

1 **Q. Please describe how the Company determines the daily contract quantity**  
2 **of gas supplies that should be acquired through long-term contracts for**  
3 **the whole year, the full winter season and periods less than a full winter**  
4 **season.**

5 A. The Company purchases gas supplies on a year-round basis to fulfill its firm  
6 requirements including storage injections and to minimize supply costs  
7 utilized to serve firm customers. Some of these contracts will escalate in  
8 volume during shoulder months (April and October) and the winter period  
9 (November through March) as the Company's firm requirements increase due  
10 to higher demand, thus sculpting year-round contracts to fit seasonal needs.  
11 The Company also purchases volumes for the winter period to meet its  
12 forecasted customer demand within the limits of the Company's firm  
13 transportation capacity entitlements, which increase during the winter period.  
14 Lastly, the Company may purchase short-term city gate peaking supply to  
15 fulfill additional firm obligations that exceed the Company's firm  
16 transportation capacity entitlements. In addition, the Company reviews low  
17 demand scenarios to measure its ability to fulfill its contractual purchase  
18 commitments with suppliers.

19 **Q. What process does the Company employ in selecting its firm gas**  
20 **suppliers?**

21 A. The Company identifies the volume and type of supply that it needs to fulfill  
22 its customer demand requirements, and in general, solicits RFPs from a list of

1 suppliers that the Company continuously updates as potential suppliers enter  
2 and leave the market place. The RFPs may be for firm baseload or swing  
3 supply. RFPs for swing supply may be further categorized into pricing based  
4 on first of the month indices, keep whole, or daily market indices. Swing  
5 supplies priced at first of the month indices command the highest reservation  
6 fees because the supplier incurs all the risk associated with market volatility  
7 during the delivery period. Keep whole contracts require the Company to  
8 reimburse the supplier for the difference between first of the month index  
9 prices and lower daily market prices if the Company does not take its full  
10 contractual volume. Because the Company assumes the volatility risk  
11 associated with falling prices, a lower reservation fee is warranted. Lower  
12 reservation fees are also associated with swing contracts referencing a daily  
13 market index because both buyer and seller assume the risk of daily market  
14 volatility. After forecasting the ultimate cost delivered to the city gate for  
15 each point of supply, and evaluating the cost of reservation fees associated  
16 with each type of supply and its corresponding bid, the Company makes a  
17 “best cost” decision on which type of supply and supplier is best suited to  
18 fulfill its needs.

19 **Q. Did the Company enter into any new supply arrangements during the**  
20 **review period?**

21 A. Yes. During the review period the Company added new supply arrangements  
22 utilizing its normal RFP process described earlier. The Company also

1 pursued and negotiated an Asset Management Arrangement to facilitate the  
2 firm call on gas at our Transco citygate for supply and storage from the TCO  
3 and Hardy systems for the periods of November 1, 2016-March 31, 2017,  
4 November 1, 2017-March 31, 2018, and November 1, 2018-March 31, 2019.

5 **Q. Please describe the process that the Company utilized and the market**  
6 **intelligence evaluated during the review period to determine the prices**  
7 **charged for secondary market sales.**

8 A. The process and information used by the Company in pricing secondary  
9 market sales depends upon the location of the sale, term of the sale, the type  
10 of sale, and prevailing market conditions at the time of the sale. For long-  
11 term delivered sales (longer than one month), in general, the Company solicits  
12 bids from potential buyers, and if acceptable, evaluates and awards available  
13 volumes. For short-term transactions (daily or monthly), the Company 1)  
14 monitors prices and volumes on the Intercontinental Exchange  
15 (Intercontinental Exchange or “ICE” is an electronic trading platform where  
16 potential buyers post bids and potential sellers post offers at various  
17 locations/areas along the pipelines), 2) talks to various market participants,  
18 and 3) for less liquid trading points, estimates prices based on price  
19 relationships with more liquid points. The Company will also evaluate the  
20 amount of supply available for sale and weigh that against current market  
21 conditions in formulating its sales strategy (i.e., if the Company has a large  
22 amount of supply to sell on a particular day and determines that market

1 demand is low, the Company will be more aggressive in its sales strategy).

2 The Company incorporates all these factors and then initiates its sales

3 strategy.

4 **Q. Did the Company make any changes in its gas purchasing policies or**  
5 **practices during the review period?**

6 A. The Company did not implement any changes in its “best cost” gas purchasing  
7 policies or practices during the review period.

8 **Q. Did the Company take any other action to reduce price volatility for its**  
9 **customers?**

10 A. The Company continues to utilize the Company’s Hedging Plan as well as  
11 storage which acts as a physical hedge to stabilize cost. The Company’s  
12 Equal Payment Plan, in addition to the adjustment of the PGA benchmark  
13 price and deferred gas cost accounting, also provide a smoothing effect on gas  
14 prices charged to customers.

15 **Q. What were the net economic results of the Hedging Plan during the**  
16 **review period?**

17 A. Piedmont’s North Carolina sales customers incurred a net economic cost of  
18 \$764,597 (see **Exhibit\_(MBT-2)**) as a result of the Company’s Hedging Plan  
19 during the review period which was an 80% decrease compared to last year.  
20 This net economic impact includes the cost of commissions and amounts to  
21 an average cost per sales customer of roughly \$0.09 per month.

1 **Q. Did the Company's Hedging Plan work properly during the review**  
2 **period?**

3 A. Yes. The Hedging Plan accomplished its goal of providing an insurance  
4 policy to reduce gas cost volatility for customers in the event of a gas price  
5 fly up.

6 **Q. Has the Company made any changes to its Hedging Plan during the**  
7 **review period?**

8 A. There were no changes made to the Hedging Plan during the review period.  
9 The Company has and will continue to closely monitor the gas supply –  
10 demand picture and make changes it deems necessary to its Hedging Plan.

11 **Q. Please describe how compliance with the Hedging Plan is monitored.**

12 A. Currently, the Gas Accounting, Finance, and Corporate Compliance areas  
13 perform ongoing activities to monitor compliance with the Hedging Plan. In  
14 addition, the Company's Energy Price Risk Management Committee  
15 monitors compliance with the Hedging Plan, as well as considers and  
16 approves any change to the Hedging Plan. Periodic internal audits have and  
17 will be performed to ensure that controls continue to be adequate and function  
18 as management intends.

19 **Q. Have there been any deviations from the Hedging Plan during the review**  
20 **period?**

21 A. There were no deviations from the Hedging Plan during the review period.

1 **Q. Given the current low price forecast and low gas cost volatility**  
2 **environment, do you think continuing to hedge under the current**  
3 **Hedging Plan is prudent?**

4 A. Because the goal of the Hedging Plan is to provide insurance against gas cost  
5 volatility if prices fly up, the Company feels it is prudent to incur what it  
6 deems to be a low-cost insurance policy and continue with the current  
7 Hedging Plan. As stated previously, the cost per sales customer during the  
8 review period was approximately \$0.09 per month. Because the current  
9 Hedging Plan only contemplates the purchase of options, the cost of the  
10 Hedging Plan is relatively low. As stated above, the Company has and will  
11 continue to closely monitor the gas supply – demand picture and make  
12 changes it deems necessary to its Hedging Plan.

13 **Q. What are some of the other steps the Company has taken to manage its**  
14 **gas costs consistent with its “best cost” policy during the review period?**

15 A. During the past year, the Company has taken the following additional steps  
16 to manage its gas costs, consistent with its “best cost” policy:

17 (1) The Company has, as more fully described in Ms. Mendoza’s  
18 testimony, actively participated in proceedings before the FERC and other  
19 regulatory agencies that could reasonably be expected to affect the  
20 Company’s rates and services;

21 (2) The Company has utilized the flexibility available within its  
22 supply and capacity contracts to purchase and dispatch gas, release capacity

1 and initiate secondary marketing sales in the most cost effective manner,  
2 resulting in secondary market credits of \$30,266,334 a 23% decrease,  
3 compared to last year's secondary market credits of \$39,270,418;

4 (3) The Company has actively promoted more efficient peak day use  
5 of natural gas and load growth from "year-round" markets in order to improve  
6 the Company's load factor and reduce average unit costs.

7 **Q. Did the Company make any changes to its gas purchasing policies and**  
8 **hedging activity as a result of the merger with Duke Energy?**

9 **A.** The Company continued purchasing and securing reasonably priced supply  
10 for our customers consistent with the 5 factors in our "best cost policy".  
11 Furthermore, the merger did not cause a change to Piedmont's hedging  
12 activity. We will continue to do what is best for our customers.

13 **Q. Please summarize your testimony.**

14 **A.** The Company's "best cost" purchasing policy provides ratepayers with secure  
15 and reasonably priced gas supplies to meet the requirements of its customers.  
16 This policy and the Company's practice under this policy have been reviewed  
17 and found prudent on all occasions in North Carolina and in the other state  
18 jurisdictions in which we operate. Although we believe our policies and  
19 procedures are reasonable, we are cognizant of the fact that the natural gas  
20 industry is rapidly changing, and we are continuously monitoring our policies  
21 and procedures to keep up with, and anticipate, these changing conditions.  
22 We have and will continue to work with the Commission and Public Staff to

1 review current regulations and tariffs and explore possible changes that will  
2 better serve our natural gas customers in the future. We are satisfied that our  
3 existing policies and procedures are prudent and that they have produced and  
4 will continue to produce adequate amounts of secure and reasonably priced  
5 gas for our customers.

6 **Q. Does this conclude your testimony?**

7 A. Yes.