

**BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION**

**NASHVILLE, TENNESSEE**

**August 20, 2019**

**IN RE:** )  
 )  
**PIEDMONT NATURAL GAS** ) **Docket No. 19-00066**  
**WEATHER NORMALIZATION ADJ. (WNA) AUDIT** )

---

**NOTICE OF FILING BY THE UTILITIES DIVISION OF THE TENNESSEE  
PUBLIC UTILITY COMMISSION**

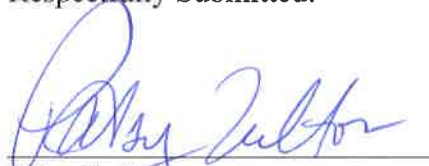
---

Pursuant to Tenn. Code Ann. §§65-4-104, 65-4-111 and 65-3-108, the Utilities Division of the Tennessee Public Utility Commission (“TPUC” or “Commission”) hereby gives notice of its filing of the Piedmont Natural Gas WNA Audit Report in this docket and would respectfully state as follows:

1. The present docket was opened by the Commission to hear matters arising out of the audit of Piedmont Natural Gas (the “Company”).
2. The Company’s WNA filings were received October 1, 2018, through April 30, 2019, and the Staff completed its audit of same on August 1, 2019.
3. On August 1, 2019, the Utilities Division submitted its preliminary WNA audit finding to the Company via e-mail. The Company responded on August 15, 2019 via e-mail and this response has been incorporated into the final report. The Report is attached to this Notice as Exhibit A and is fully incorporated herein by this reference.

4. The Utilities Division hereby files its Report with the Tennessee Public Utility Commission for deposit as a public record and approval of the Report and recommendations contained therein.

Respectfully Submitted:

A handwritten signature in blue ink, appearing to read "Patsy Fulton", is written over a horizontal line.

Patsy Fulton  
Utilities Division  
Tennessee Public Utility Commission

**CERTIFICATE OF SERVICE**

I hereby certify that on this 20th day of August 2019 a true and exact copy of the foregoing has been either hand-delivered or delivered via U.S. Mail, postage pre-paid, to the following persons:

Earl Taylor  
Executive Director  
Tennessee Public Utility Commission  
502 Deaderick Street  
Nashville, TN 37243

Robin Morrison  
Chair  
Tennessee Public Utility Commission  
502 Deaderick Street  
Nashville, TN 37243

Pia Powers  
Director – Regulatory Affairs  
Piedmont Natural Gas Company  
P.O. Box 33068  
Charlotte, North Carolina 28233

Wayne M. Irvin  
Office of the Attorney General  
Consumer Advocate Unit  
P.O. Box 20207  
Nashville, TN 37202-0207

  
\_\_\_\_\_  
Patsy Fulton

# **EXHIBIT A**

**COMPLIANCE AUDIT REPORT**

**OF**

**PIEDMONT NATURAL GAS**

**WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER**

**DOCKET NO. 19-00066**

**TENNESSEE PUBLIC UTILITY COMMISSION**

**UTILITIES DIVISION**

**August 2019**

**COMPLIANCE AUDIT OF**  
**Piedmont Natural Gas**  
**WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER**  
**Docket No. 19-00066**

TABLE OF CONTENTS

	<u>PAGE NO.</u>
I. INTRODUCTION AND AUDIT OPINION	1
II. SCOPE OF AUDIT	1
III. BACKGROUND INFORMATION ON PIEDMONT NATURAL GAS COMPANY	2
IV. BACKGROUND ON WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER	2
V. IMPACT OF WNA RIDER	3
VI. CHART COMPARING ACTUAL TO NORMAL HEATING DEGREE DAYS	5
VII. WNA FINDINGS	6
VIII. CONCLUSIONS AND RECOMMENDATIONS	7
ATTACHMENT 1	
<u>SERVICE SCHEDULE NO. 315</u>	
<u>WEATHER NORMALIZATION ADJUSTMENT RIDER</u>	

**COMPLIANCE AUDIT**  
**PIEDMONT NATURAL GAS**  
**WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER**

**Docket No. 19-00066**

**I. INTRODUCTION AND AUDIT OPINION**

The subject of this compliance audit is the Weather Normalization Adjustment (“WNA”) Rider of Piedmont Natural Gas (“PNG,” “Piedmont” or the “Company”). The objective of this audit was to determine if the WNA adjustments were calculated correctly and applied to customers' bills appropriately between October 1, 2018 and April 30, 2019. As a result of the WNA Rider, the Company surcharged a net \$2,694,474.87 and \$1,493,414.28 to the residential and commercial customers respectively, during the period. The impact of WNA revenues on the Company’s total revenues is detailed in Section V, Table 1.

The audit produced one finding. Except for the finding reported in Section VII, Staff concludes that the Company is correctly implementing the mechanics of the WNA Rider as specified by the Tennessee Public Utility Commission (“Commission”)<sup>1</sup> and included in the Company’s tariff (Attachment 1).

**II. SCOPE OF AUDIT**

In meeting the objective of the audit, the Staff compared the following on a daily basis:

- (1) The Company's actual heating degree days (ADD) to National Oceanic and Atmospheric Administration (“NOAA”) actual heating degree days;
- (2) The Company's normal heating degree days (NDD) to the normal heating degree days calculated in the last rate case; and
- (3) The Company's calculation of the WNA factors to Staff's independent calculation for each billing cycle during the WNA period.

Staff also selected a sample of customer bills to verify that the WNA factor had been correctly applied to customer bills. In addition, Staff examined each sample bill to determine whether the Base Rates and Purchased Gas Adjustments and other billing adjustments were billed correctly. As a result of the bill audit, Staff maintains PNG is correctly billing its customers.

Patsy Fulton of the Utilities Division conducted this audit.

---

<sup>1</sup> Effective April 5, 2017, the name of Tennessee Regulatory Authority was changed to the Tennessee Public Utility Commission and board members of the agency are now known as Commissioners rather than Directors.

### **III. BACKGROUND INFORMATION ON PIEDMONT NATURAL GAS**

Piedmont Natural Gas Company corporate headquarters are located at 4720 Piedmont Row Drive, Charlotte, North Carolina. Local offices are located at 83 Century Blvd., Nashville, Tennessee. PNG is a natural gas distributor that provides service to Nashville and several other communities in the Middle Tennessee area, as well as service areas in North and South Carolina. The natural gas used to serve Tennessee is purchased from producers and marketers and transported to Nashville's city gate through the interstate transmission facilities of Tennessee Gas Pipeline (TGP), Columbia Gas Transmission Corporation (CGTC), Texas Eastern Gas Pipeline (TETCO), and Midwestern Gas Transmission Company (MGTC).

### **IV. BACKGROUND ON WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER**

In setting rates, the Tennessee Public Utility Commission uses a normalized level of revenues and expenses for a test year, which is designed to be the most reasonable estimate of the Company's operations during the time the rates are to be in effect. Use of normalized operating levels eliminates unusual fluctuations that may occur during the test period, which causes rates to be set too high or too low.

Specifically, one part of normalizing revenues consists of either increasing or decreasing the test year weather related sales volumes to reflect the difference between the normal and actual heating degree days. (A heating degree day is calculated as the difference in the average daily temperature and 65 degrees Fahrenheit.) This average daily temperature constitutes normal weather and is determined based on the previous thirty years' weather data.<sup>2</sup>

Normal weather rarely occurs. This has two impacts:

- (1) The customers' bills fluctuate dramatically due to changes in weather from month to month; and
- (2) The gas companies earn more or less than their authorized rate of return. For example, if weather is colder than normal, then more gas than anticipated in the rate case will be sold. This results in higher customer bills and over-earnings for the company. On the other hand, if weather is warmer than normal, less gas than anticipated in the rate case will be sold, the customers' bills will be lower and the company will under-earn.

In recognition of this fact, on September 26, 1991, the Tennessee Public Service Commission<sup>3</sup> ("TPSC") approved a three-year experimental Weather Normalization Adjustment Rider ("WNA Rider") to the tariffs of Chattanooga Gas Company, Nashville Gas Company, a division of Piedmont Natural Gas Company, Inc. and United Cities Gas

---

<sup>2</sup> Weather data is published monthly by the National Oceanic and Atmospheric Administration ("NOAA").

<sup>3</sup> By legislative action, the Public Service Commission was replaced on July 1, 1996 by the Tennessee Regulatory Authority. See Act of May 24, 1995, ch. 305, 1995 Tenn. Pub. Acts 450. The TRA retains jurisdiction over the above named gas companies. See Tenn. Code Ann. § 65-4-104: see also Tenn. Code Ann. § 65-4-101 (a) (defining public utility).

Company.<sup>4</sup> In periods of weather colder than normal, the customer receives a credit on his bill, while in periods of warmer than normal weather, the customer is billed a surcharge. Thus, customers' monthly bills should not fluctuate as dramatically and the gas company should have a more stable rate of return. The WNA Rider was to be applied to residential and commercial customers' bills during the months of October through May of each year. On June 21, 1994, the TPSC issued an Order authorizing the above mentioned gas companies to permanently implement an amended version of the WNA Rider.<sup>5</sup>

Piedmont Natural Gas was authorized to calculate WNA adjustments during the months of November through March of each year until its last rate case in Docket No. 11-00144 when the WNA period was extended to October through April effective March 1, 2012.<sup>6</sup> The TPUC Staff audits these calculations annually.

## V. IMPACT OF WNA RIDER

The table below quantifies the number of actual heating degree days by month as compared to the normal heating degree days for that month. It shows that during the audit period, the weather (overall) was warmer than normal, resulting in a net surcharge from PNG to its customers for the period. See also the graph on page 5 which visually compares the actual heating degree days to normal heating degree days for Piedmont during the 2018-2019 heating season.

<i>Month</i>	Actual Heating Degree Days	Normal Heating Degree Days	Warmer/Colder than Normal
September 2018	2	20	Warmer
October 2018	190	173	Colder
November 2018	551	438	Colder
December 2018	613	742	Warmer
January 2019	766	826	Warmer
February 2019	443	632	Warmer
March 2019	493	447	Colder
April 2019	137	203	Warmer
<b>Total</b>	<b>3,195</b>	<b>3,481</b>	<b>Warmer</b>

Since the overall weather during the October 1, 2018 through April 30, 2019 period was warmer than normal, the net impact of the WNA Rider was that residential and

<sup>4</sup> See petition of Chattanooga Gas Company, Nashville Gas Company, a Division of Piedmont Natural Gas Company, Inc. and United Cities Gas Company for a Rulemaking Hearing to Adopt a Weather Normalization Adjustment (WNA) Rider, Docket No. 91-01712, *Order* (September 26, 1991).

<sup>5</sup> The amendment directed Chattanooga Gas Company and United Cities Gas Company to eliminate from their WNA Rider the shoulder months of October and May, and Nashville Gas Company to eliminate the shoulder months of October, April and May.

<sup>6</sup> See *In Re: Petition of Piedmont Natural Gas Company, Inc. for an Adjustment to Its Rates, Approval of Changes to its Rate Design, Amortization of Certain Deferred Assets, Approval of New Depreciation rates, Approval of Revised Tariffs and Service Regulations, and Approval of a New Energy Efficiency Program and GTI Funding*, Docket No. 11-00144, *Order*, p. 14.



commercial customers were **surcharged** \$2,694,474 and \$1,493,414 respectively. This equates to an increase from total residential and commercial sales revenues of 2.5% and 2.4%, respectively (See Table 1). This is an increase from the WNA surcharges in the previous year when the residential and commercial customers were **surcharged** a net of \$1,490,844 and \$759,807 respectively. Table 2 below compares the WNA charges/ (refunds) over the last three (3) winter heating seasons

Table 1

**Impact of WNA Rider on Residential & Commercial Revenues  
October 1, 2018 - April 30, 2019**

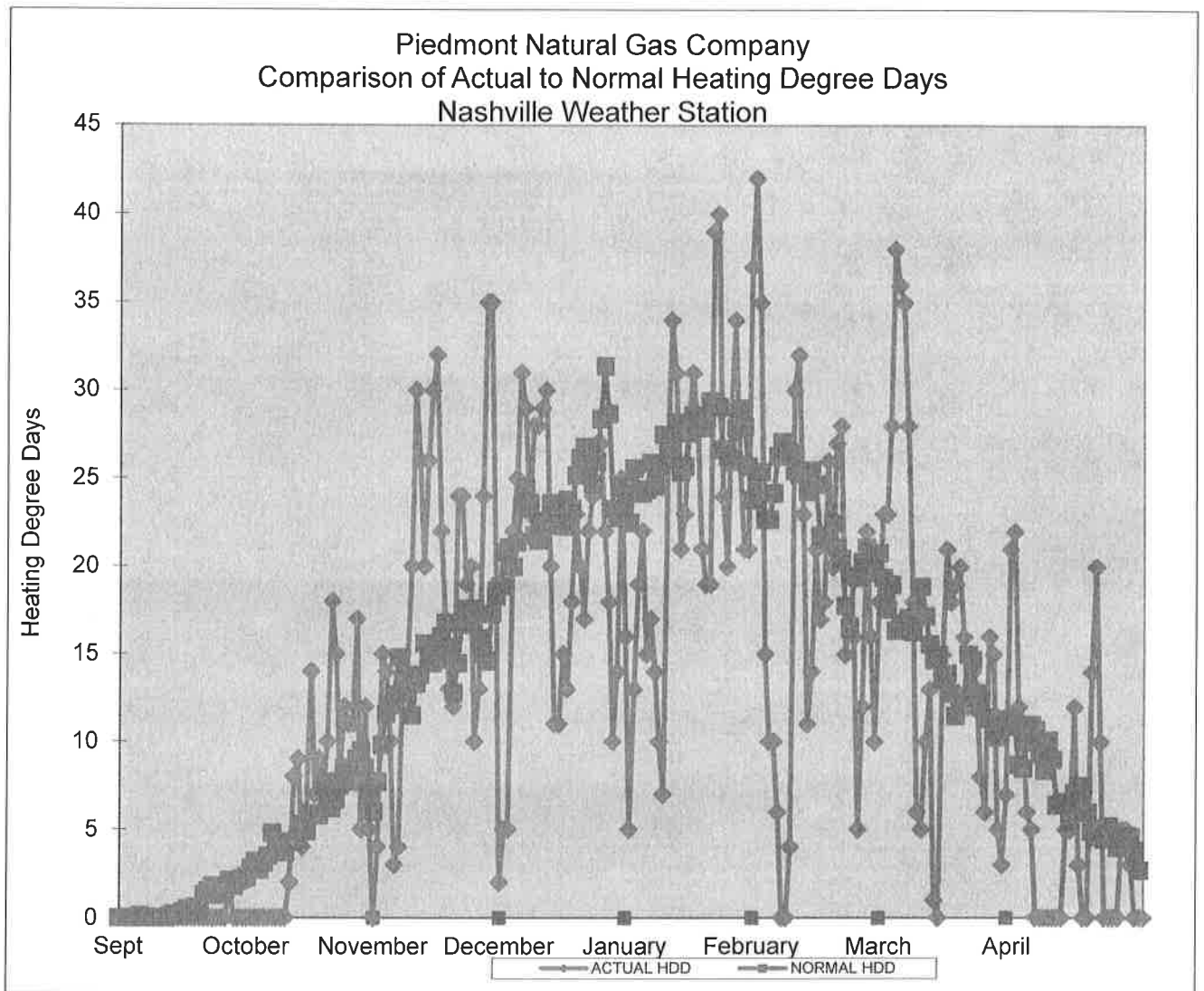
	<u>WNA Rider Revenues</u>	<u>Total Revenues</u>	Percentage Impact of WNA Rider on Revenue
Residential Sales	\$ 2,694,475	\$ 108,313,160	2.5%
Commercial Sales	<u>1,493,414</u>	<u>62,041,317</u>	2.4%
<b>Total</b>	<u><u>\$ 4,187,889</u></u>	<u><u>\$ 170,354,477</u></u>	2.5%

Table 2

**Amount Surcharged (Refunded)  
2016 - 2019**

	<u>Residential</u>	<u>Commercial</u>	Total <u>Surcharge/(Refund)</u>
10/16-4/17	9,377,102	5,143,824	14,520,926
10/17-4/18	1,490,844	759,807	2,250,651
10/18-4/19	<u>2,694,474</u>	<u>1,493,414</u>	<u>4,187,889</u>
<b>Total</b>	<u><u>\$13,562,420</u></u>	<u><u>\$ 7,397,045</u></u>	<u><u>\$ 20,959,466</u></u>

## VI. CHART COMPARING ACTUAL TO NORMAL HEATING DEGREE DAYS



## VII. WNA FINDINGS

As noted in Section I of this report, Staff's audit resulted in one finding for the winter heating season of October 2018 through April 2019. This finding is described in detail below.

### FINDING #1:

#### Exception:

The Company used incorrect actual heating degree days on December 16, 2018, March 8, 2019 and March 10, 2019 in its weather normalization calculations.

#### Discussion:

The Company used incorrect actual heating degree days for three (3) days in the period, which resulted in inaccurate WNA factors billed in thirty-nine (39) billing cycles.

These inaccuracies are due to differences in daily heating degree days published in NOAA's Local Climatological Data Summary report<sup>7</sup> and the daily heating degree days that the Company used in calculating its WNA factors.<sup>8</sup> In order to timely bill its customers, the Company must obtain actual degree day information from its weather information source(s) on a real time basis, prior to any date revisions by NOAA. The WNA Rider and the Staff's audit of this Rider are based on the official NOAA publication, which is released approximately two months later. Therefore, Staff recognizes that discrepancies can be caused by the Company's weather information source through no fault of the Company.

Date	Company Actual Degree Days	NOAA Actual Degree Days	Difference
12/16/2018	10	13	3
3/08/2019	16	18	2
3/10/2019	4	5	1
		Total	<u>6</u>

The result of these errors was a total **net over-collection** of WNA revenues from customers of \$95,215.

---

<sup>7</sup> This published report is the official data supplied by NOAA known as the *Local Climatological Data Daily Summary* after undergoing all final revisions and the final quality control by the National Climatic Data Center, and is the standard that the Staff uses to audit the Weather Normalization Rider.

<sup>8</sup> See Table for detail of the differences.

**Recommendation:**

Since the dollar amount of this finding is immaterial on a per customer basis, Staff recommends including the over-collection in the Company's next Actual Cost Adjustment filing, rather than identifying and refunding to specific customers.

**Company Response:**

The Company is in agreement with Staff's recommendation.

**VIII. WNA CONCLUSIONS AND RECOMMENDATIONS**

Based on Staff's review of the WNA adjustments during the period October 1, 2018 through April 30, 2019, as stated in its Audit Opinion in Section I, Staff found one immaterial error and concludes that PNG is correctly implementing the mechanics of the WNA Rider to its tariff. Based on its analysis, Staff recommends that the Company include the \$95,215 over collection (refund) in the next Actual Cost Adjustment filing, with the Tennessee Public Utility Commission. Staff further recommends that the Commission approve Staff's Audit Report, the finding and conclusions therein.

# **ATTACHMENT 1**

## **SERVICE SCHEDULE NO. 315**

### **Weather Normalization Adjustment**

### **(WNA) Rider**

#### **I. Provision for Adjustment**

The base rates per therm (100,000 Btu) for gas service set forth in any rate schedules utilized by the Authority in determining normalized test period revenues shall be adjusted by an amount hereinafter described, which amount is referred to as the "Weather Normalization Adjustment".

The Weather Normalization Adjustment will be applicable for bills rendered on and after October 1 and continuing through the final billing cycle in April of each year.

C

#### **II. Definitions**

For the purposes of this Rider:

"Authority" means the Tennessee Regulatory Authority.

"Relevant Rate Order" means the final order of the Authority in the most recent litigated rate case of the Company fixing the rates of the Company or the most recent final order of the Authority specifically prescribing or fixing the factors and procedures to be used in the application of this Rider.

#### **III. Computation of Weather Normalization Adjustment**

The Weather Normalization Adjustment shall be computed to the nearest one-hundredth cent per therm by the following formula:

$$WNA_i = R_i \quad * \quad \frac{(HSF_i(NDD-ADD))}{(BL_i + (HSF_i \times ADD))}$$

Where:

I = any particular rate schedule or billing classification within any particular rate schedule that contains more than one billing classification.

$WNA_i$  = Weather Normalization Adjustment Factor for the  $i^{th}$  rate schedule or classification expressed in cents per therm.

$R_i$  = weighted average base rate (base rate less any embedded gas cost) of temperature sensitive sales for the  $i^{th}$  schedule or classification utilized by the Authority in the Relevant Rate Order for the purpose of determining normalized test year revenues.

- $HSF_i =$  heat sensitive factor for the  $i^{th}$  schedule or classification utilized by the Authority in the Relevant Rate Order for the purpose of determining normalized test year revenues.
- $NDD =$  normal billing cycle heating degree days utilized by the Authority in the Relevant Rate Order for the purpose of determining normalized test year revenues.
- $ADD =$  actual billing cycle heating degree days.
- $BL_i =$  base load sales for the  $i^{th}$  schedule or classification utilized by the Authority in the Relevant Rate Order for the purpose of determining normalized test year revenues.

#### IV. Filing with Authority

The Company will file as directed by the Authority (a) a copy of each computation of the Weather Normalization Adjustment, (b) a schedule showing the effective date of each such Weather Normalization Adjustment, and a schedule showing the factors or values derived from the Relevant Rate Order used in calculating such Weather Normalization Adjustment.

Piedmont Natural Gas Company, Inc.  
 TRA Docket #11-00144  
 WNA Factors effective March 1, 2012

Revised  
 Settlement Attachment C

Rate Schedule	November - March "R" Factor (\$/Therm)	October & April "R" Factor (\$/Therm)	Heat Sensitivity Factor (HSF) (Therms/DDD)	Base Factor (BL) (Therms/Month)
Residential - 301	0.32000	0.27000	0.17045	7.91316
Small & Medium General - 302 & 302	0.35400	0.30000	0.74873	104.85079