

BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION

NASHVILLE, TENNESSEE

November 13, 2018

IN RE:

**AUDIT OF PIEDMONT NATURAL GAS COMPANY'S
WEATHER NORMALIZATION ADJUSTMENT FOR THE
PERIOD OCTOBER 1, 2017 THROUGH APRIL 30, 2018**

**DOCKET NO.
18-00078**

**ORDER ADOPTING WNA AUDIT REPORT OF THE UTILITIES DIVISION
OF THE TENNESSEE PUBLIC UTILITY COMMISSION**

This matter came before Vice Chair Kenneth C. Hill, Commissioner Herbert H. Hilliard, and Commissioner John Hie of the Tennessee Public Utility Commission, the voting panel assigned to this docket, at a regularly scheduled Commission Conference held on September, 21, 2018 for consideration of the Weather Normalization Adjustment Audit Report ("Audit Report") of the Commission's Utilities Division (the "Staff") resulting from the Staff's audit of Piedmont Natural Gas Company's ("Piedmont" or the "Company") Weather Normalization Adjustment ("WNA") for the period October 1, 2017 through April 30, 2018. The Audit Report, which was filed on September 7, 2018 is attached hereto as Exhibit 1 and incorporated by reference in this Order.

The Audit Report contained one finding. The Company used incorrect actual heating degree days for one (1) day in December 2017, which resulted in inaccurate WNA factors billed in nineteen (19) billing cycles spanning December 2017 and January 2018.¹ As a result of these errors, customers were over-billed \$28,938. Due to the immaterial amount of the over-collection, Staff recommended the Company add the over-collection to the Company's next Actual Cost Adjustment ("ACA") filing with the Commission.

¹ Audit Report, p.6 (September 7, 2018).

The Company agreed with the Staff's finding and recommendation. Except for the finding noted, the Staff concluded that it appears Piedmont is correctly implementing the mechanics of its WNA Rider in all material aspects.

At the regularly scheduled Commission Conference held on September 21, 2018, the panel considered the Staff's Audit Report. Thereafter, the panel voted unanimously to approve the September 7, 2018, Staff Audit Report as filed.

IT IS THEREFORE ORDERED THAT:

1. The Audit Report, a copy of which is attached to this Order as Exhibit 1, is approved and adopted and incorporated in this Order as if fully rewritten herein.

2. Piedmont Natural Gas Company shall include the over-collected amount in its next Actual Cost Adjustment filing with the Tennessee Public Utility Commission.

Vice Chair Kenneth C. Hill, Commissioner Herbert H. Hilliard and Commissioner John Hie concur.

ATTEST:



Earl R. Taylor, Executive Director

EXHIBIT 1

EXHIBIT A

COMPLIANCE AUDIT REPORT

OF

PIEDMONT NATURAL GAS

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER

DOCKET NO. 18-00078

TENNESSEE PUBLIC UTILITY COMMISSION

UTILITIES DIVISION

September 2018

COMPLIANCE AUDIT OF
Piedmont Natural Gas
WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER
Docket No. 18-00078

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

Docket No. 18-00078

I. INTRODUCTION AND AUDIT OPINION

The subject of this compliance audit is the Weather Normalization Adjustment (WNA) Rider of Piedmont Natural Gas (hereafter "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, 2017 and April 30, 2018. As a result of the WNA Rider, the Company surcharged a net \$1,490,844.32 and \$759,807.37 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 ("TPUC" or the "Commission")¹ and included in the Company's tariff (Attachment 1).

There were no findings in the last WNA audit report (Docket 17-00064).

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 to examining 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.

¹ As of April 5, 2017, the name of Tennessee Regulatory Authority has changed to the Tennessee Public Utility Commission and board members of the agency will be 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.²

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 Commission³ ("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

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

³ 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.⁴ 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.⁵

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, 2012.⁶ 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 2017-2018 heating season.

<i>Month</i>	<i>Actual Heating Degree Days</i>	<i>Normal Heating Degree Days</i>	<i>Warmer/Colder than Normal</i>
September 2017	12	20	Warmer
October 2017	163	175	Warmer
November 2017	399	438	Warmer
December 2017	758	742	Colder
January 2018	886	826	Colder
February 2018	429	631	Warmer
March 2018	444	447	Warmer
April 2018	295	203	Colder
Total	3,386	3,482	Warmer

Since the overall weather during the October 1, 2017 through April 30, 2018 period was warmer than normal, the net impact of the WNA Rider was that residential and

⁴ 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).

⁵ 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.

⁶ 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** \$1,490,844 and \$759,807 respectively. This equates to an increase from total residential and commercial sales revenues of 1.3% and 1.2%, respectively (See Table 1). This is a decrease from the WNA surcharges in the previous year when the residential and commercial customers were **surcharged** a net of \$9,377,102 and \$5,143,824 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, 2017 - April 30, 2018**

	<u>WNA Rider Revenues</u>	<u>Total Revenues</u>	<u>Percentage Impact of WNA Rider on Revenue</u>
Residential Sales	\$ 1,490,844	\$ 113,477,235	1.3%
Commercial Sales	<u>759,807</u>	<u>64,102,709</u>	<u>1.2%</u>
Total	<u>\$ 2,250,651</u>	<u>\$177,579,944</u>	<u>1.3%</u>

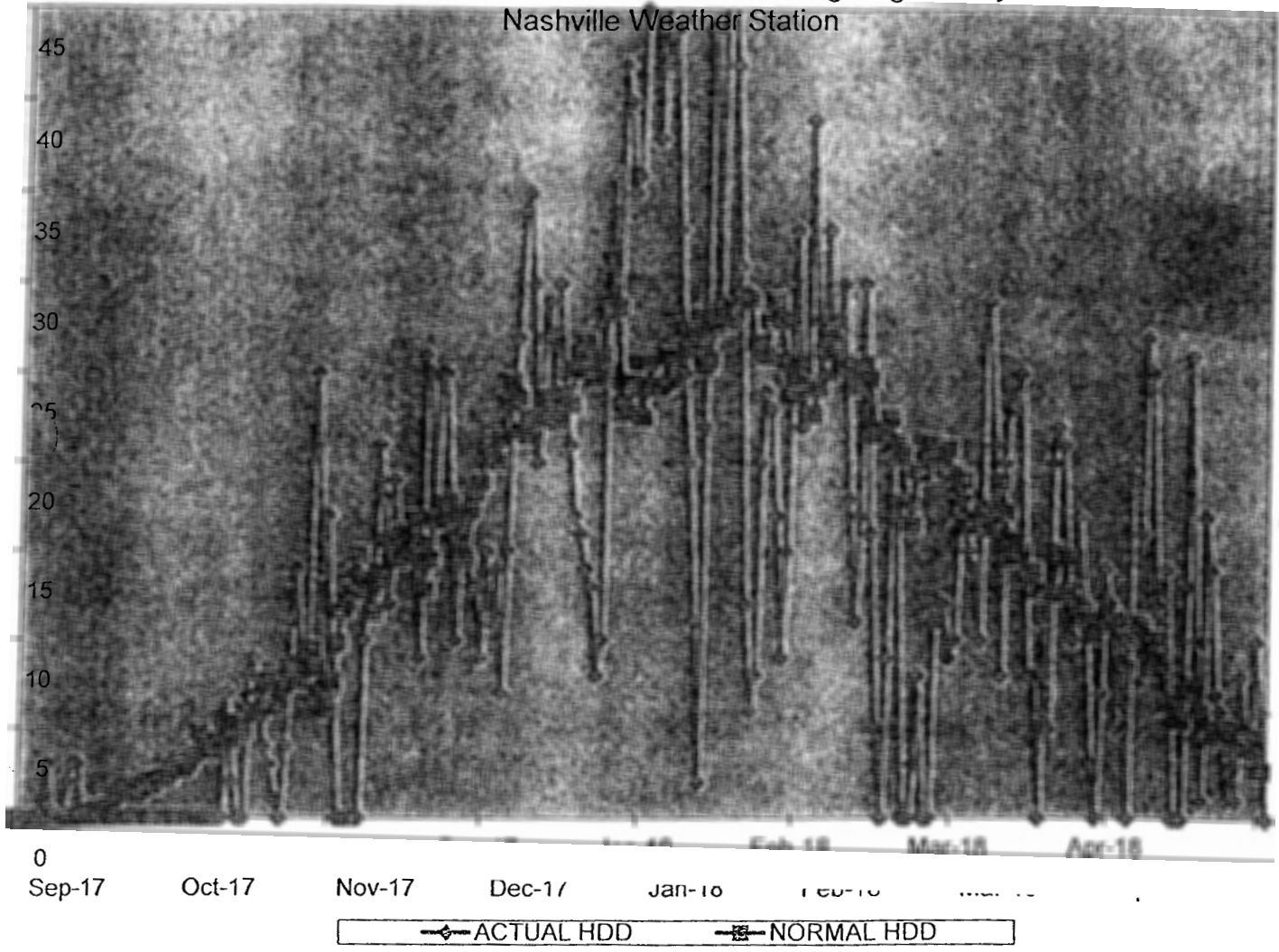
Table 2

**Amount Surcharged (Refunded)
2015 - 2018**

	<u>Residential</u>	<u>Commercial</u>	<u>Total Surcharge/Refund</u>
10/15-4/16	\$6,225,662	\$ 3,387,779	\$ 9,613,441
10/16-4/17	9,377,102	5,143,824	14,520,926
10/17-4/18	1,490,844	759,807	<u>2,250,651</u>
Total	<u>\$17,093,608</u>	<u>\$ 9,291,410</u>	<u>\$ 26,385,018</u>

VI. CHART COMPARING ACTUAL
TO NORMAL HEATING DEGREE DAYS

Piedmont Natural Gas Company
Comparison of Actual to Normal Heating Degree Days
Nashville Weather Station



VII. WNA FINDINGS

As noted in Section I of this report, Staff's WNA audit resulted in one Finding.

SUMMARY OF FINDINGS

FINDING #1 Actual Degree Day Differences \$28,938 Over-recovery

FINDING #1:

Exception

The Company used incorrect daily actual heating degree days (ADD) in its weather normalization adjustment factor calculations.

Discussion

The Company used incorrect actual heating degree days (ADD) on December 27, 2017. This error affected 19 Bill Cycles in December 2017 and January 2018. Since WNA factors are calculated on a real time basis for billing purposes, Piedmont receives its daily heating degree day information from a weather service provider. This is preliminary data that has not been finalized by the National Oceanic and Atmospheric Administration ("NOAA").⁷ According to the Company, the number of heating degree days calculated from the observed high and low temperatures for the following dates are as follows. The final NOAA report, which is released after the fact, corrected the heating degree days as noted.

Date	Company	NOAA	Difference
12/27/17	40	42	-2

The result of these errors is an **over-collection of \$28,938** in WNA revenues from Piedmont's customers.

Recommendation

Based on the immaterial amount of over-collection, Staff recommends this over-collection be added to the Company's Actual Cost Adjustment (ACA) Account Balance in the next ACA audit filed with the Commission.

Company Response

The Company is in agreement with Staff's recommendation.

⁷ NOAA is the official standard used by Staff to audit the WNA adjustments.

VIII. WNA CONCLUSIONS AND RECOMMENDATIONS

Based on Staff's review of the WNA adjustments during the period October 1, 2017 through April 30, 2018, 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 \$28,938 over collection in the next Actual Cost Adjustment filing, with the Tennessee Public Utility Commission. Staff further recommends that the Commissioners of the Tennessee Public Utility Commission approve Staff's Audit Report.

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.

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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.