

BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION

NASHVILLE, TENNESSEE

August 30, 2017

IN RE:

**AUDIT OF ATMOS ENERGY CORPORATION'S
WEATHER NORMALIZATION ADJUSTMENT FOR THE
PERIOD OCTOBER 1, 2016 THROUGH APRIL 30, 2017**

**DOCKET NO.
17-00063**

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

This matter came before Chairman David F. Jones, Commissioner Herbert H. Hilliard, and Commissioner Kenneth C. Hill of the Tennessee Public Utility Commission, the voting panel assigned to this docket, at a regularly scheduled Commission Conference held on August 15, 2017 for consideration of the Weather Normalization Adjustment Audit Report ("Audit Report") of the Commission's Utilities Division (the "Audit Staff" or "Staff") resulting from the Staff's audit of Atmos Energy Corporation's ("Atmos" or the "Company") Weather Normalization Adjustment ("WNA") for the period October 1, 2016 through April 30, 2017. The Audit Report, which was filed on July 25, 2017, is attached hereto as Exhibit 1 and incorporated by reference in this Order.

The Audit Report contained two findings. First, the Company used incorrect actual daily heating degree days for eleven (11) days in the period to calculate the WNA factor. The result was that customers were over-billed a net total of \$8,767.20 in WNA revenues. Audit Staff recommended that this over-collection be added to Atmos' ACA balance in the next ACA audit. Atmos agreed with Staff's finding and recommendation. The second finding involved the Company's use of an incorrect base load factor in the WNA formula for the calculation of the

Large Commercial customers' WNA factors in the Nashville service area. Audit Staff reports that the Company used the previous year's base load factor of 106.9¹ instead of updating the calculation to use the base load factor of 107.56,² approved for the 2016-2017 heating season. The result was that these customers were over-billed a net total of \$184.50. Audit Staff recommended that this over-collection be included in Atmos' ACA balance in the next ACA audit. Atmos agreed with Staff's finding and recommendation.

At the regularly scheduled Commission Conference held on August 15, 2017, the panel considered the Audit Report. Thereafter, the panel voted unanimously to approve the July 25, 2017, Staff Audit Report as filed, including the findings and recommendations contained therein.

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. Atmos Energy Corporation shall include the over-collected amount in its next Actual Cost Adjustment filing with the Tennessee Public Utility Commission.

Chairman David Jones, Commissioner Herbert H. Hilliard and Commissioner Kenneth C. Hill concur.

ATTEST:



Earl R. Taylor, Executive Director

¹ See *In re: Petition of Atmos Energy Corporation for Approval of Its 2016 Annual Rate Review Filing Pursuant to Tenn. Code Ann. § 65-5-103(D)(6)*, Docket No. 16-00013, *Approved Tennessee Tariffs, Effective for Bills Rendered on or after June 1, 2016* (May 11, 2016).

² *Report*, p.15 (July, 25, 2017).

EXHIBIT 1

7/25/2017 11:17 AM
BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION

NASHVILLE, TENNESSEE

July 24, 2017

IN RE:)
)
ATMOS ENERGY CORPORATION) Docket No. 17-00063
WEATHER NORMALIZATION ADJ. (WNA) AUDIT)


**NOTICE OF FILING BY 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 the "Commission") hereby gives notice of its filing of the Atmos Energy Corporation 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 Atmos Energy Corporation (the "Company").
2. The Company's WNA filings were received on October 1, 2016, through April 30, 2017, and the Staff completed its audit of same on July 19, 2017
3. On June 19, 2017, the Utilities Division submitted its preliminary WNA audit findings to the Company via e-mail. The Company responded on June 22, 2017 via e-mail and this response has been incorporated into the final report. The Report is attached hereto 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 recommendations and findings contained therein.

Respectfully Submitted:


Dan Ray
Utilities Division
Tennessee Public Utility Commission

CERTIFICATE OF SERVICE

I hereby certify that on this 24th day of July 2017, 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
Andrew Jackson Building
502 Deaderick Street
Nashville, Tennessee 37243

David F. Jones
Chairman
Tennessee Public Utility Commission
Andrew Jackson Building
502 Deaderick Street
Nashville, TN 37243

Josh Densman
Vice President of Finance
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Wayne M. Irvin
Office of the Attorney General
Consumer Advocate and Protection Division
P.O. Box 20207
Nashville, TN 37202-0207


Dan Ray

EXHIBIT A

COMPLIANCE AUDIT REPORT

OF

ATMOS ENERGY CORPORATION

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER

Docket No. 17-00063

TENNESSEE PUBLIC UTILITY COMISSION

UTILITIES DIVISION

July 2017

COMPLIANCE AUDIT
ATMOS ENERGY CORPORATION
WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER
DOCKET NO. 17-00063

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COMPLIANCE AUDIT
ATMOS ENERGY CORPORATION
WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER
DOCKET NO. 17-00063

I. INTRODUCTION AND AUDIT OPINION

The subject of this compliance audit is the Weather Normalization Adjustment ("WNA") Rider of Atmos Energy Corporation ("Atmos" or "Company"). The objective of this audit is to determine if the WNA adjustments were calculated correctly and applied to customers' bills appropriately between October 2016 and April 2017. As a result of the WNA Rider, the Company **surcharged a net \$2,232,586** to the residential customers and **surcharged a net \$2,290,753 to the commercial customers** during the period. The impact of WNA revenues on the Company's total revenues is detailed in Section V.

The Audit Staff's ("Staff") audit resulted in two (2) findings regarding the WNA, showing that the Company **over-collected \$8,951.70** from customers. See Section VI for a description of the Staff's finding. Except for the findings noted in this report, Staff concludes that Atmos is correctly implementing the mechanics of the WNA Rider as specified by the Tennessee Public Utility Commission ("TPUC" or the "Commission") and included in the Company's tariff (See Attachment 1).

Staff confirmed that the Findings, an over-collection of WNA Revenues due to incorrect actual heating degree days, reported in the last WNA audit report (Docket No. 16-00062), were corrected in the Company's most Recent ACA filing with the Commission (Docket No. 16-00109). The total over-collection amount 17,843.22 was credited to the ACA Account in June 2016.

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 to National Oceanic and Atmospheric Administration ("NOAA") actual heating degree days;
- (2) the Company's normal heating degree days to the normal heating degree days calculated in the last rate case¹; and
- (3) the Company's calculation of the WNA factors to Staff's calculations.

The Staff also selected a sample of customer bills to verify that the WNA factor had been correctly applied to the bills. The Staff also examined each sample bill to determine whether the Base Rates and Purchased Gas Adjustments and other billing components were billed correctly. Staff found no discrepancies.

¹ In Re: Petition of Atmos Energy for Approval of 2016 Annual Reconciliation Filing, Docket No. 16-00105.

The Utilities Division of the TPUC is responsible for compliance audits of the regulated gas companies. Daniel Ray of the Utilities Division conducted this audit.

III. BACKGROUND INFORMATION ON THE COMPANY

Atmos, with its principal office at 810 Crescent Centre Drive, Franklin, Tennessee, is a wholly owned subsidiary of its parent company Atmos Energy Corporation, located in Dallas, Texas. Atmos Energy Corporation is a multi-state gas distributor, providing service to multiple communities in Tennessee. The gas to serve these areas is obtained from Atmos Energy Marketing ("AEM")² and other suppliers, and delivered by four natural gas pipelines in accordance with separate and individual tariffs approved by the Federal Energy Regulatory Commission ("FERC"). The four interstate pipelines are East Tennessee Natural Gas ("ETNG"), Texas Eastern Transmission Corporation ("TETC"), Columbia Gulf Transmission Corporation ("CGTC") and Texas Gas Transmission Corporation ("TGTC").

ETNG provides service to Atmos in Tennessee for the Columbia, Shelbyville, Lynchburg, Maryville-Alcoa, Morristown, Bristol, Elizabethton, Gray, Greeneville, Johnson City and Kingsport areas.

TETC and CGTC provide service to Atmos in Tennessee for Murfreesboro, Nolensville, Franklin and adjacent areas in Rutherford and Williamson Counties.

TGTC provides service to Atmos in Union City, Tennessee and adjacent areas in Obion County.

IV. BACKGROUND ON WEATHER NORMALIZATION ADJUSTMENT RIDER

In setting rates, the Tennessee Public Utility Commission⁴ 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.⁵

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

² Atmos Energy Marketing is the wholly owned marketing arm of Atmos Energy Corporation.

³ *In Re: Petition of Atmos Energy Corporation for Approval of Contract Regarding Gas Commodity Requirements and Management of Transportation/Storage*, Docket No. 14-00009.

⁴ As of April 5, 2017, the name of Tennessee Regulatory Authority has changed to Tennessee Public Utility Commission and board members of the agency will be known as Commissioners rather than Directors.

⁵ Weather data is published monthly by the National Oceanic and Atmospheric Administration ("NOAA").

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 Commission⁶ ("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 Company.⁷ 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.⁸

As a result of the Company's prior rate case in Docket No. 12-00064 before this Authority, Atmos's WNA Rider tariff was amended effective December 1, 2012. Atmos calculates and bills the WNA to customers during the months of October through April of each year. The TPUC Staff audits these WNA calculations annually. Atmos's WNA Rider tariff that governs this audit period accompanies this Report as Attachment 1.

⁶ 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).

⁷ 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).

⁸ 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.

V. IMPACT OF WEATHER NORMALIZATION ADJUSTMENT RIDER

The following tables summarize a comparison of actual heating degree days ("ADD") to normal heating degree days ("NDD") by month for Atmos Energy Corporation during the 2016- 2017 heating season, in each of its four service areas.⁹ During the past winter, overall, weather was 20.6% warmer in the Bristol area, 27.5% warmer in the Knoxville area, 30.3% warmer in the Nashville area, and 23.3% warmer in the Paducah area compared to normal weather.

Bristol:

| Month | Actual Heating Degree Days | Normal Heating Degree Days | Warmer/Colder than Normal |
|----------------|----------------------------|----------------------------|---------------------------|
| September 2016 | 5 | 36 | Warmer |
| October 2016 | 140 | 282 | Warmer |
| November 2016 | 474 | 551 | Warmer |
| December 2016 | 778 | 812 | Warmer |
| January 2017 | 633 | 894 | Warmer |
| February 2017 | 546 | 700 | Warmer |
| March 2017 | 531 | 537 | Warmer |
| April 2017 | 138 | 274 | Warmer |
| | | | |
| Total | 3245 | 4086 | 20.6% Warmer |

Knoxville:

| Month | Actual Heating Degree Days | Normal Heating Degree Days | Warmer/Colder than Normal |
|----------------|----------------------------|----------------------------|---------------------------|
| September 2016 | 4 | 17 | Warmer |
| October 2016 | 48 | 196 | Warmer |
| November 2016 | 352 | 462 | Warmer |
| December 2016 | 681 | 752 | Warmer |
| January 2017 | 544 | 798 | Warmer |
| February 2017 | 434 | 606 | Warmer |
| March 2017 | 404 | 459 | Warmer |
| April 2017 | 72 | 200 | 27.5% Warmer |

⁹ Atmos' service territory is divided into four (4) service areas for WNA calculation purposes. Each area's WNA factors are calculated separately based on the actual degree days calculated from daily weather observations as reported by Tri-Cities Regional TN/VA Airport (KTRJ) for the Bristol area, McGhee Tyson Airport (KTYN) for Knoxville area, Nashville International Airport (KBNA) for Nashville area and Barkley Regional Airport (KPAH) for the Paducah area. The weather observations from these locations are reported to NOAA and the daily actual degree days are published by NOAA monthly in its *Local Climatological Data* report.

| | | | |
|-------|-------------|-------------|--------|
| Total | <u>2539</u> | <u>3500</u> | Warmer |
|-------|-------------|-------------|--------|

Nashville:

| Month | Actual Heating Degree Days | Normal Heating Degree Days | Warmer/Colder than Normal |
|----------------|----------------------------|----------------------------|---------------------------|
| September 2016 | 13 | 17 | Warmer |
| October 2016 | 33 | 191 | Warmer |
| November 2016 | 308 | 445 | Warmer |
| December 2016 | 683 | 732 | Warmer |
| January 2017 | 546 | 817 | Warmer |
| February 2017 | 385 | 625 | Warmer |
| March 2017 | 369 | 442 | Warmer |
| April 2017 | <u>76</u> | <u>191</u> | Warmer |
| Total | <u>2413</u> | <u>3460</u> | 30.3% Warmer |

Paducah:

| Month | Actual Heating Degree Days | Normal Heating Degree Days | Warmer/Colder than Normal |
|----------------|----------------------------|----------------------------|---------------------------|
| September 2016 | 14 | 32 | Warmer |
| October 2016 | 90 | 228 | Warmer |
| November 2016 | 397 | 510 | Warmer |
| December 2016 | 826 | 823 | Colder |
| January 2017 | 694 | 911 | Warmer |
| February 2017 | 458 | 695 | Warmer |
| March 2017 | 436 | 523 | Warmer |
| April 2017 | <u>104</u> | <u>221</u> | Warmer |
| Total | <u>3019</u> | <u>3934</u> | 23.3% Warmer |

Note: Charts showing a comparison of actual degree days compared to normal degree days can be found at the end of this Section (pages 7-10).

The net impact of the WNA Rider on the Company's revenues was that residential customers were **surcharged \$2,232,586** and commercial customers were **surcharged \$2,290,753**. This equates to an increase in residential sales revenues of 4.59% and an increase in commercial sales revenues of 7.42% (See Table 1). This surcharge is an increase from the amount surcharged during the previous year, when residential and commercial customers were surcharged \$1,436,969 and \$1,478,862 respectively. (See Table 2 for a comparison of the last three heating seasons.)

Table 1

**Impact of WNA Rider on Residential & Commercial Revenues
October 2016- April 2017**

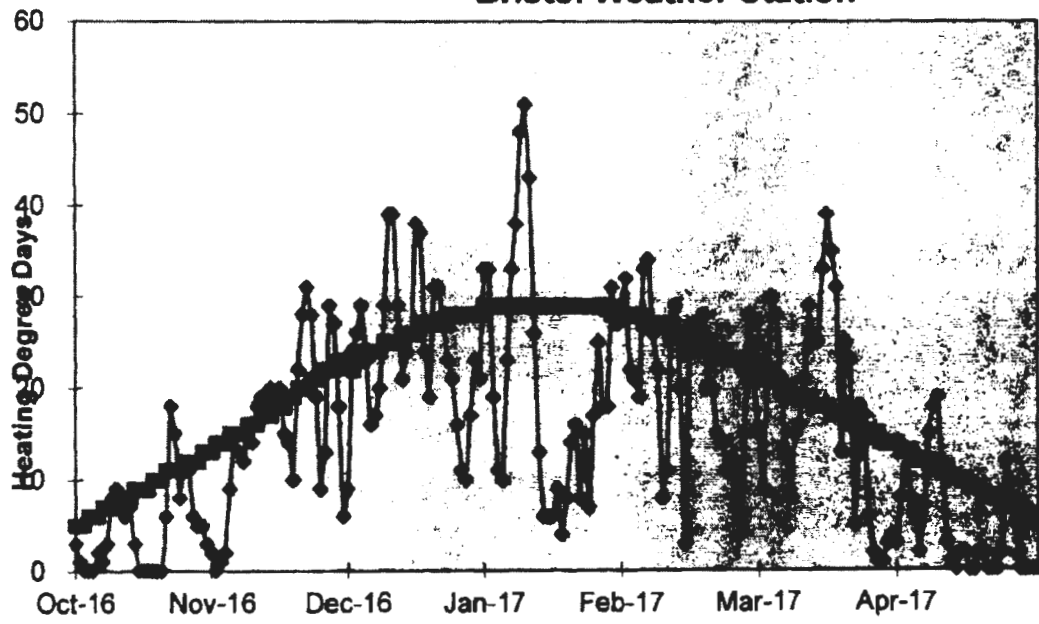
| | <u>WNA Rider Revenues</u> | <u>Total Revenues</u> | <u>Percentage Impact of WNA Rider On Revenues</u> |
|-------------------|-------------------------------|---------------------------|---|
| Residential Sales | \$2,232,586 | 48,605,890 | 4.59% |
| Commercial Sales | <u>\$2,290,753</u> | <u>30,872,366</u> | <u>7.42%</u> |
| Total | <u>\$4,523,339</u> | <u>79,478,256</u> | <u>5.69%</u> |

Table 2

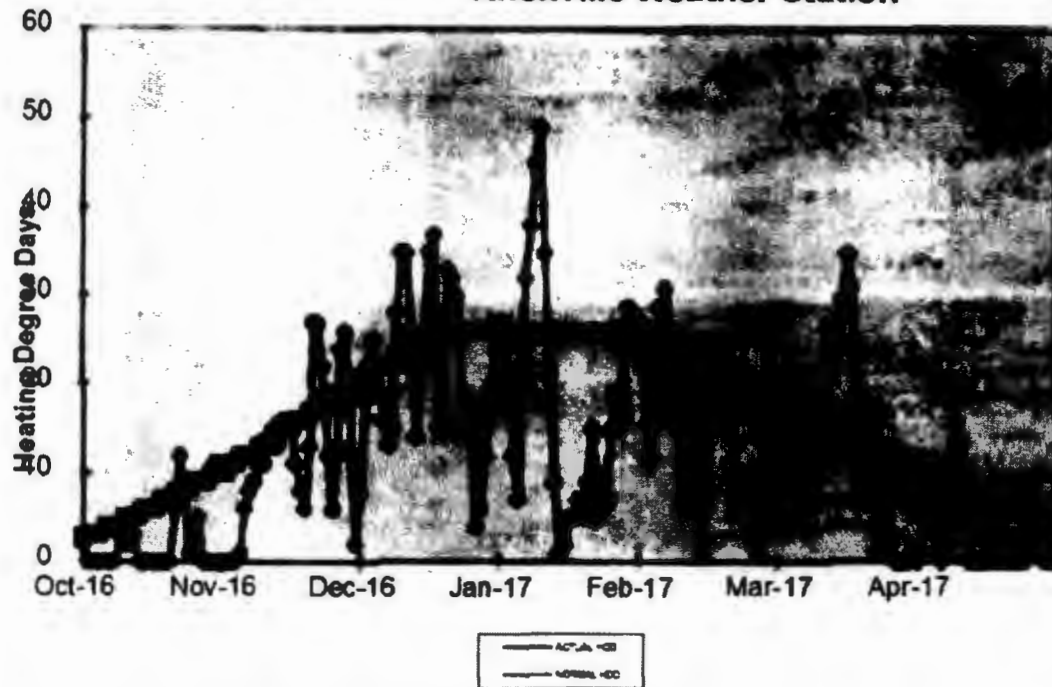
**Amount Surcharged (Refunded)
2014 - 2017**

| | <u>Residential</u> | <u>Commercial</u> | <u>Total Surcharge/(Refund)</u> |
|------------|---------------------|---------------------|-------------------------------------|
| 10/14-4/15 | (735,683) | (762,351) | (1,498,034) |
| 10/15-4/16 | 1,436,969 | 1,478,862 | 2,915,831 |
| 10/16-4/17 | <u>2,232,586</u> | <u>2,290,753</u> | <u>4,523,339</u> |
| Total | <u>\$ 2,933,872</u> | <u>\$ 3,007,264</u> | <u>\$ 5,941,136</u> |

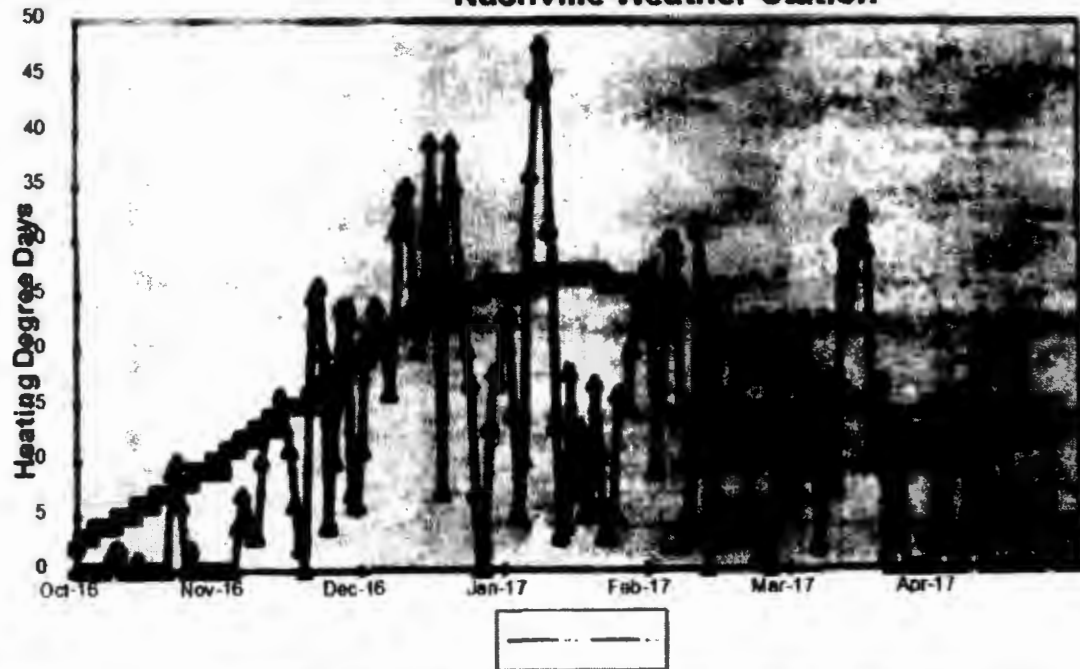
**Atmos Energy Corporation
Comparison of Actual to Normal Heating Degree Days
Bristol Weather Station**



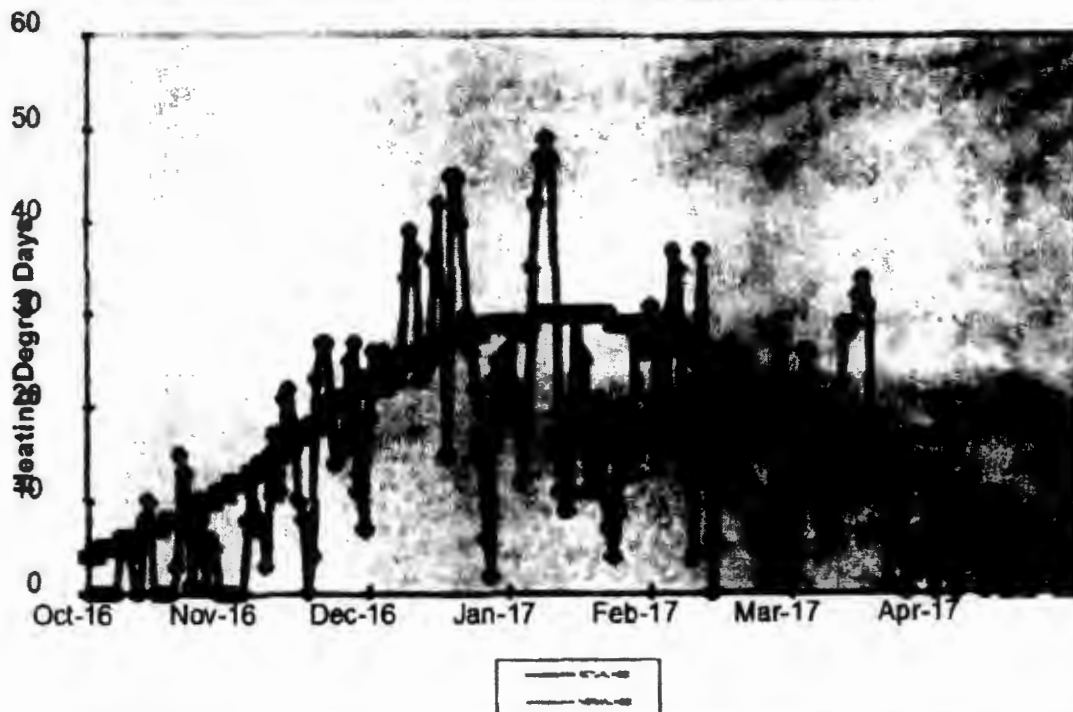
**Atmos Energy Corporation
Comparison of Actual to Normal Heating Degree Days
Knoxville Weather Station**



**Atmos Energy Corporation
Comparison of Actual to Normal Heating Degree Days
Nashville Weather Station**



**Atmos Energy Corporation
Comparison of Actual to Normal Heating Degree Days
Paducah Weather Station**



VI. WNA AUDIT FINDINGS

FINDING #1:

Exception

The Company used inaccurate actual daily heating degree days in the calculation of the WNA factor.

Discussion

The audit period consisted of 968 weather observations (242 days in the period times four weather stations). Audit results indicate that the Company used inaccurate actual daily heating degree days in the calculation of the WNA factor on five (5) days for the Bristol weather station, four (4) days for the Knoxville weather station, and two (2) days for the Paducah weather station for a total of eleven (11) weather observations. These inaccuracies are due to differences in daily heating degree days published in NOAA's Local Climatological Data report¹⁰ and the daily heating degree days that the Company used in calculating its WNA factors.¹¹ 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. The WNA Rider and the Staff's audit of this Rider are based on the official NOAA publication. Therefore, Staff recognizes that discrepancies can be caused by the Company's weather information source through no fault of the Company.

| Weather Station/ Date | Company Actual Degree Days | NOAA Actual Degree Days | Difference |
|----------------------------------|---------------------------------------|------------------------------------|-------------------|
| <u>Bristol:</u> | | | |
| 11/9/16 | 13 | 14 | 1 |
| 11/10/16 | 17 | 18 | 1 |
| 12/15/16 | 37 | 38 | 1 |
| 1/4/17 | 22 | 23 | 1 |
| 3/19/17 | 24 | 25 | 1 |
| | | Total | <u>5</u> |

| Weather Station/ Date | Company Actual Degree Days | NOAA Actual Degree Days | Difference |
|----------------------------------|---------------------------------------|------------------------------------|-------------------|
| <u>Knoxville:</u> | | | |
| 10/12/16 | 1 | 3 | 2 |
| 11/30/16 | 6 | 8 | 2 |
| 12/9/16 | 39 | 35 | -4 |
| 1/27/17 | 28 | 29 | 1 |
| | | Total | <u>1</u> |

¹⁰ This published report is the official data supplied by NOAA and is the standard that the Staff uses to audit the Weather Normalization Adjustment Rider.

¹¹ See Table below for detail of the differences.

| Weather Station/ Date | Company Actual Degree Days | NOAA Actual Degree Days | Difference |
|--------------------------|-------------------------------|----------------------------|------------|
| <u>Paducah:</u> | | | |
| 11/4/16 | 7 | 8 | 1 |
| 1/30/17 | 29 | 28 | -1 |
| | | Total | 0 |

Recommendation

These heating degree day differences resulted in a **net over-recovery of \$8,767.20** in WNA revenues.¹² Since the dollar amount of this finding is immaterial on a per customer basis, Staff recommends that the Company include the over-recovery in its next Actual Cost Adjustment filing, as has been its custom.

Company Response

Atmos Energy acknowledges use of preliminary data for its monthly billing of WNA when actual NOAA data was not yet available. The Company agrees that \$8,767.20 net over-recovery is a reasonable assessment of the impact of these billing inaccuracies for the 2016-2017 heating season. We agree to include this correction in the next ACA filing as recommended.

¹² The net over-recovery is comprised of \$6,602.51 over-recovery for Bristol, \$2,143.09 over-recovery for Knoxville and \$21.60 over-recovery for Paducah.

FINDING #2:

Exception

The company used inaccurate base load factor in calculating the Large Commercial WNA factor for the Nashville weather station.

Discussion

In calculating the WNA factor the company used the previous year's large commercial base load factor of 106.9, instead of the approved base load factor of 107.56. This error resulted in an over-recovery of \$184.50.

Recommendation

This error resulted in an **over-recovery of \$184.50** in WNA revenues. Since the dollar amount of this finding is immaterial on a per customer basis, Staff recommends that the Company include the over-recovery in its next Actual Cost Adjustment filing, as has been its custom.

Company Response

Atmos Energy acknowledges use of the incorrect large commercial base load factor for the Nashville weather station. The Company agrees that \$184.50 over-recovery is a reasonable assessment of the impact of these billing inaccuracies for the 2016-2017 heating season. We agree to include this correction in the next ACA filing as recommended.

VII. CONCLUSIONS AND RECOMMENDATIONS

The Company has satisfactorily responded to Staff's Findings #1 and #2. As stated in Section I, except for the findings noted, Staff concludes that it appears that Atmos is correctly implementing the mechanics of its WNA Rider in all material respects. **Staff recommends that the Company include the net over-collection of \$8,951.70 in its next Actual Cost Adjustment filing with the TPUC, covering the period July 2016 through June 2017. Atmos has agreed to do so.**

Staff appreciates and thanks the Company staff for their cooperation during this audit process.

ATTACHMENT 1

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDERProvisions for Adjustment

The base rate per therm/Ccf (100,000 Btu) for gas service set forth in any Rate Schedules utilized by the Tennessee Regulatory 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 shall apply to all residential, commercial, and small industrial bills based on meters read during the revenue months of October through April.

Definitions

For purpose of this Rider:

"Regulatory Authority" means the Tennessee Regulatory Authority

"Relevant Rate Order" means the final order of the Regulatory 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 Regulatory Authority specifically prescribing or fixing the factors and procedures to be used in the application of this Rider.

Computation of Weather Normalization Adjustment

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

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

Where

- i = any particular Rate Schedule or billing classification within any such 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/Ccf
- R_i = weighted average base rate of temperature sensitive sales for the i^{th} schedule or classification utilized by the Tennessee Regulatory Authority in the Relevant Rate Order for the purpose of determining normalized test year revenues

ATMOS ENERGY CORPORATION

T.R.A. No. 1
5th Revised Sheet No. 51 ✓
~~Canceled 4th Revised Sheet No. 51~~

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER (Continued)

- HSP_i heat sensitive factor for the ith schedule or classification utilized by the Regulatory 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 Regulatory 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 ith schedule or classification utilized by the Regulatory Authority in the Relevant Rate Order for the purpose of determining normalized test year revenues

Filing with Regulatory Authority

The Company will file as directed by the Regulatory 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 (c) a schedule showing the factors or values derived from the Relevant Rate Order used in calculating such Weather Normalization Adjustment.

Heat Use/Base Use Factors

| <u>Town</u> | <u>Residential/PA</u> | | <u>Commercial - Small Industrial</u> | |
|--|-------------------------------|-----------------------------------|--------------------------------------|-----------------------------------|
| | <u>Base use</u> <u>Ccf</u> | <u>Heat use</u> <u>Ccf/HDD</u> | <u>Base use</u> <u>Ccf</u> | <u>Heat use</u> <u>Ccf/HDD</u> |
| Union City | 4.80 | .147831 | 54.36 | .519304 |
| Columbia Shelbyville Franklin Murfreesboro | 9.62 | .161096 | 107.56 | .602931 |
| Maryville Morristown | 7.43 | .121850 | 108.42 | .628435 |
| Johnson City Elizabethton Kingsport Greenville Bristol | 6.72 | .125172 | 105.07 | .615374 |