

BEFORE THE TENNESSEE REGULATORY AUTHORITY

NASHVILLE, TENNESSEE

September 23, 2013

IN RE:)	
)	
AUDIT OF ATMOS ENERGY CORPORATION)	DOCKET NO.
WEATHER NORMALIZATION ADJUSTMENT)	13-00092
FOR THE PERIOD NOVEMBER 1, 2012)	
THROUGH APRIL 30, 2013)	

**ORDER ADOPTING WNA AUDIT REPORT OF THE UTILITIES DIVISION
OF THE TENNESSEE REGULATORY AUTHORITY**

This matter came before Vice Chairman Herbert H. Hilliard, Director Kenneth C. Hill and Director David F. Jones of the Tennessee Regulatory Authority (the “Authority” or “TRA”), the voting panel assigned to this docket, at a regularly scheduled Authority Conference held on September 9, 2013, for consideration of the Weather Normalization Adjustment Audit Report (“Audit Report”) of the Authority’s Utilities Division (the “Staff”) resulting from the Staff’s audit of Atmos Energy Corporation’s (“Atmos” or the “Company”) Weather Normalization Adjustment (“WNA”) for the period November 1, 2012 through April 30, 2013. The Audit Report, which was filed on July 25, 2013, is attached hereto as Exhibit 1 and incorporated by reference in this Order.

The Audit Report contained one finding. The finding identified that the Company used incorrect actual heating degree days for eleven (11) days in the calculation period of the WNA, which resulted in an over-collection of \$5,219.04. The Staff recommended that the net over-recovery be included in the next Actual Cost Adjustment (“ACA”) filing. Atmos concurred with the finding and recommendation.

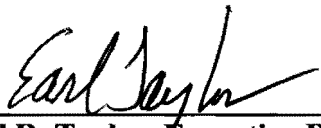
At the regularly scheduled Authority Conference held on September 9, 2013, the panel considered the Audit Report and voted unanimously to approve the findings and recommendations contained therein.

IT IS THEREFORE ORDERED THAT:

The Audit Report, a copy of which is attached to this Order as Exhibit 1, is approved and adopted, including the findings and recommendations contained therein, and are incorporated in this Order as if fully rewritten herein.

Vice Chairman Herbert H. Hilliard, Director Kenneth C. Hill and Director David F. Jones concur.

ATTEST:



Earl R. Taylor, Executive Director

EXHIBIT 1

RECEIVED

2013 JUL 25 PM 3:47

BEFORE THE TENNESSEE REGULATORY AUTHORITY

TRA DOCKET ROOM

NASHVILLE, TENNESSEE

July 25, 2013

IN RE:

ATMOS ENERGY CORPORATION

WEATHER NORMALIZATION ADJ. (WNA) AUDIT)

)

)

) **Docket No. 13-00092**

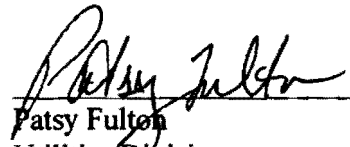
**NOTICE OF FILING BY UTILITIES DIVISION OF THE
TENNESSEE REGULATORY AUTHORITY**

Pursuant to Tenn. Code Ann. §§ 65-4-104, 65-4-111 and 65-3-108, the Utilities Division of the Tennessee Regulatory Authority (the "Utilities Division") 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 Authority to hear matters arising out of the audit of Atmos Energy Corporation (the "Company").
2. The Company's WNA filings were received on November 1, 2012, through April 30, 2013, and the Staff completed its audit of same on July 21, 2013.
3. On July 22, 2013, the Utilities Division submitted its preliminary WNA audit findings to the Company via e-mail. The Company responded on July 23, 2013 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 Regulatory Authority for deposit as a public record and approval of the recommendations and findings contained therein.

Respectfully Submitted:



Patsy Fulton
Utilities Division
Tennessee Regulatory Authority

CERTIFICATE OF SERVICE

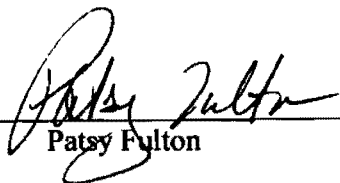
I hereby certify that on this 25th day of July 2013, a true and exact copy of the foregoing has been either hand-delivered or delivered via U.S. Mail, postage pre-paid, to the following persons:

Earl Taylor
Executive Director
460 James Robertson Parkway
Nashville, Tennessee 37243

James M. Allison
Chairman
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, TN 37243

Ms. Patricia Childers
Vice President of Regulatory Affairs
Kentucky/Mid-states Division
Atmos Energy Corporation
810 Crescent Centre Drive, Suite 600
Franklin, TN 37067-6226

Vance Broemel, Esq.
Office of the Attorney General
Consumer Advocate and Protection Division
P.O. Box 20207
Nashville, TN 37202-0207



Patsy Fulton

EXHIBIT A

COMPLIANCE AUDIT REPORT

OF

ATMOS ENERGY CORPORATION

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER

Docket No. 13-00092

TENNESSEE REGULATORY AUTHORITY

UTILITIES DIVISION

July 2013

**COMPLIANCE AUDIT
ATMOS ENERGY CORPORATION
WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER
DOCKET NO. 13-00092**

TABLE OF CONTENTS

	<u>PAGE NO.</u>
I. INTRODUCTION AND AUDIT OPINION	1
II. SCOPE OF AUDIT	1
III. BACKGROUND INFORMATION ON THE COMPANY	2
IV. BACKGROUND ON WEATHER NORMALIZATION ADJUSTMENT RIDER	2
V. IMPACT OF WEATHER NORMALIZATION ADJUSTMENT RIDER	4
VI. WNA AUDIT FINDINGS	11
VII. CONCLUSIONS AND RECOMMENDATIONS	13
ATTACHMENT 1 (WEATHER NORMALIZATION ADJUSTMENT RIDER)	

COMPLIANCE AUDIT
ATMOS ENERGY CORPORATION
WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER
DOCKET NO. 13-00092

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 November 2012 and April 2013. As a result of the WNA Rider, the Company surcharged a net \$11,144 to the residential customers and refunded a net \$4,044 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 one (1) finding regarding the WNA, showing that the Company **over-collected \$5,219.04** from customers. See Section VI for a description of the Staff’s finding. Except for the finding noted in this report, Staff concludes that Atmos is correctly implementing the mechanics of the WNA Rider as specified by the Tennessee Regulatory Authority (“TRA” or the “Authority”) and included in the Company’s tariff (See 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 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 case; and
- (3) the Company's calculation of the WNA factors to Staff's calculations.

The Staff 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 were billed correctly. Staff found no discrepancies.

The Utilities Division of the TRA is responsible for compliance audits of the regulated gas companies. Patsy Fulton 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")^{1 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 Regulatory Authority 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.³

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.

¹ Atmos Energy Marketing is the wholly owned marketing arm of Atmos Energy Corporation.

² *In Re: Petition of Atmos Energy Corporation for Approval of the Contract(s) Regarding Gas Commodity Requirements, Etc.*, Docket No. 11-00034.

³ Weather data is published monthly by the National Oceanic and Atmospheric Administration ("NOAA").

In recognition of this fact, on September 26, 1991, the Tennessee Public Service Commission⁴ ("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.⁵ 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.⁶

As a result of the Company's last rate case in Docket No. 12-00064 before this Authority, Atmos's WNA Rider tariff was amended effective December 1, 2012. Atmos's current WNA Rider tariff accompanies this Report as Attachment 1. The TRA Staff audits these WNA calculations annually.

⁴ 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).

⁵ 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).

⁶ 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 2012– 2013 heating season, in each of its four service areas.⁷ During the past winter, overall, weather was 1.19% colder in the Bristol area, 1.32% colder in the Knoxville area, 0.58% warmer in the Nashville area, and 4.45% colder in the Paducah area compared to normal weather.

Bristol:

Month	Actual Heating Degree Days	Normal Heating Degree Days	Warmer/Colder than Normal
October 2012	298	303	Warmer
November 2012	638	570	Colder
December 2012	687	812	Warmer
January 2013	771	894	Warmer
February 2013	731	698	Colder
March 2013	746	537	Colder
April 2013	286	294	Warmer
Total	<u>4,157</u>	<u>4,108</u>	Colder

Knoxville:

Month	Actual Heating Degree Days	Normal Heating Degree Days	Warmer/Colder than Normal
October 2012	221	210	Colder
November 2012	542	470	Colder
December 2012	582	752	Warmer
January 2013	688	798	Warmer
February 2013	644	606	Colder
March 2013	643	441	Colder
April 2013	221	218	Colder
Total	<u>3,541</u>	<u>3,495</u>	Colder

⁷ 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 (KTRI) for the Bristol area, McGhee Tyson Airport (KTYS) 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.

Nashville:

Month	Actual Heating Degree Days	Normal Heating Degree Days	Warmer/Colder than Normal
October 2012	218	189	Colder
November 2012	514	460	Colder
December 2012	545	732	Warmer
January 2013	709	817	Warmer
February 2013	624	615	Colder
March 2013	616	442	Colder
April 2013	212	203	Colder
Total	<u>3,438</u>	<u>3,458</u>	Warmer

Paducah:

Month	Actual Heating Degree Days	Normal Heating Degree Days	Warmer/Colder than Normal
October 2012	280	236	Colder
November 2012	572	531	Colder
December 2012	635	823	Warmer
January 2013	846	911	Warmer
February 2013	738	695	Colder
March 2013	715	492	Colder
April 2013	300	224	Colder
Total	<u>4,086</u>	<u>3,912</u>	Colder

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 that the WNA Rider had on the Company's revenues was that residential customers were **surcharged** \$11,144 and commercial customers were **refunded** \$4,044. This equates to an increase in revenues of residential sales of 0.02% and a decrease in revenues of commercial sales of 0.01%. (See Table 1) During the previous year, warmer than normal weather resulted in residential and commercial customers being **surcharged** \$1,709,895 and \$1,208,155 respectively. (See Table 2 for a comparison of the last three heating seasons.)

Table 1

**Impact of WNA Rider on Residential & Commercial Revenues
November 2012- April 2013**

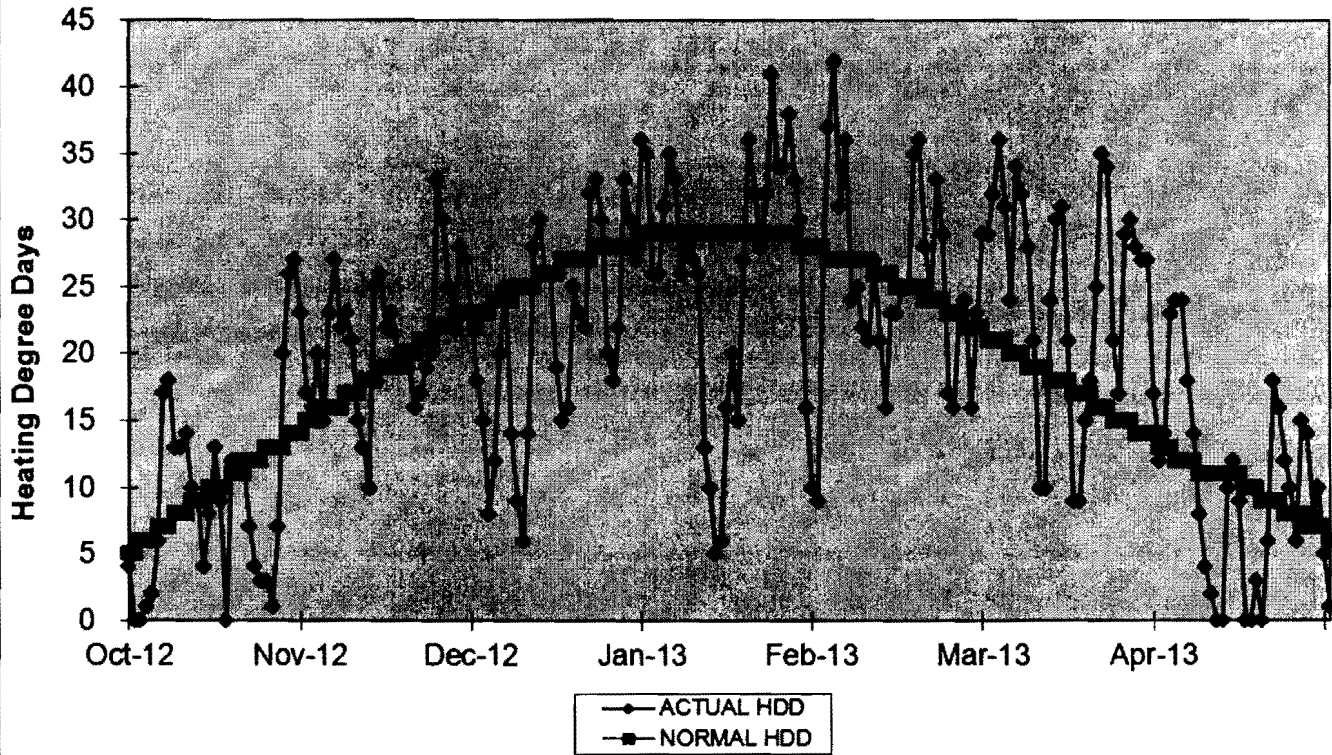
	<u>WNA Rider Revenues</u>	<u>Total Revenues</u>	<u>Percentage Impact of WNA Rider On Revenues</u>
Residential Sales	\$11,144	\$51,012,614	0.02%
Commercial Sales	<u>\$(4,044)</u>	<u>\$31,124,440</u>	<u>-0.01%</u>
Total	<u>\$ 7,100</u>	<u>\$82,137,054</u>	0.01%

Table 2

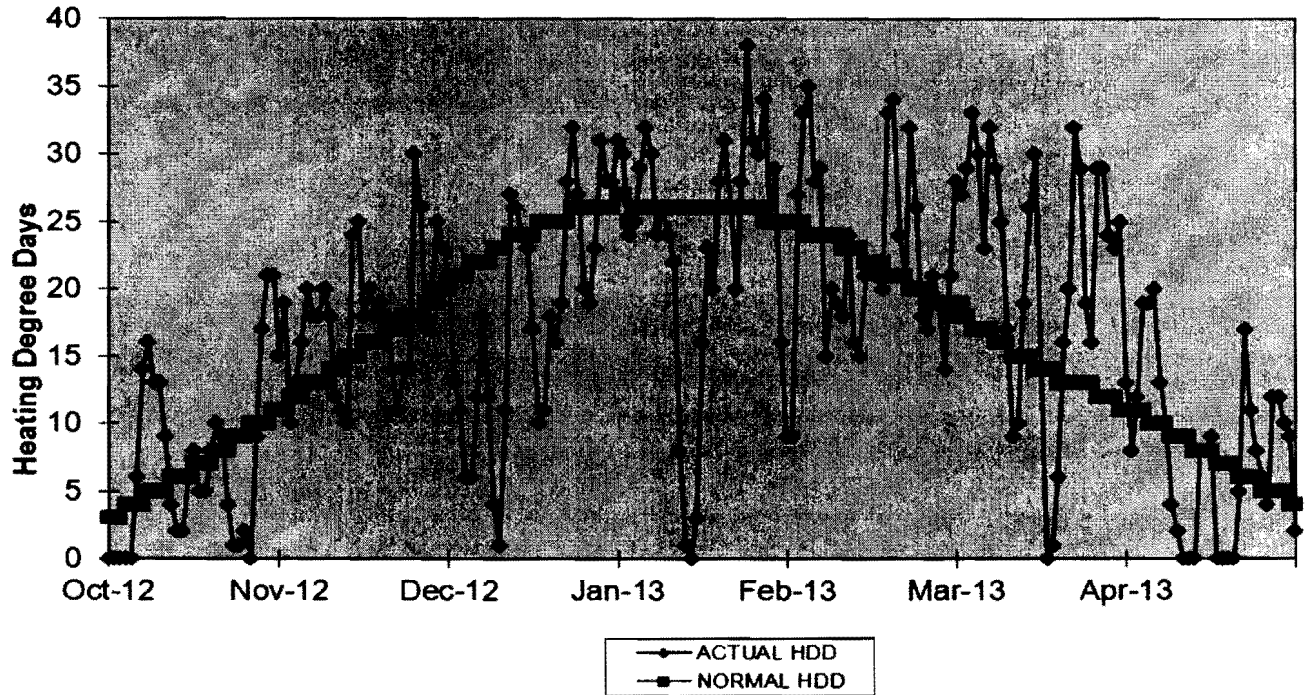
**Amount Surcharged (Refunded)
2010 - 2013**

	<u>Residential</u>	<u>Commercial</u>	<u>Total Surcharge/(Refund)</u>
11/10-4/11	(62,035)	(54,845)	(116,880)
11/11-4/12	1,709,895	1,208,155	2,918,050
11/12-4/13	<u>11,144</u>	<u>(4,044)</u>	<u>7,100</u>
Total	<u>\$1,659,004</u>	<u>\$1,149,266</u>	<u>\$2,808,270</u>

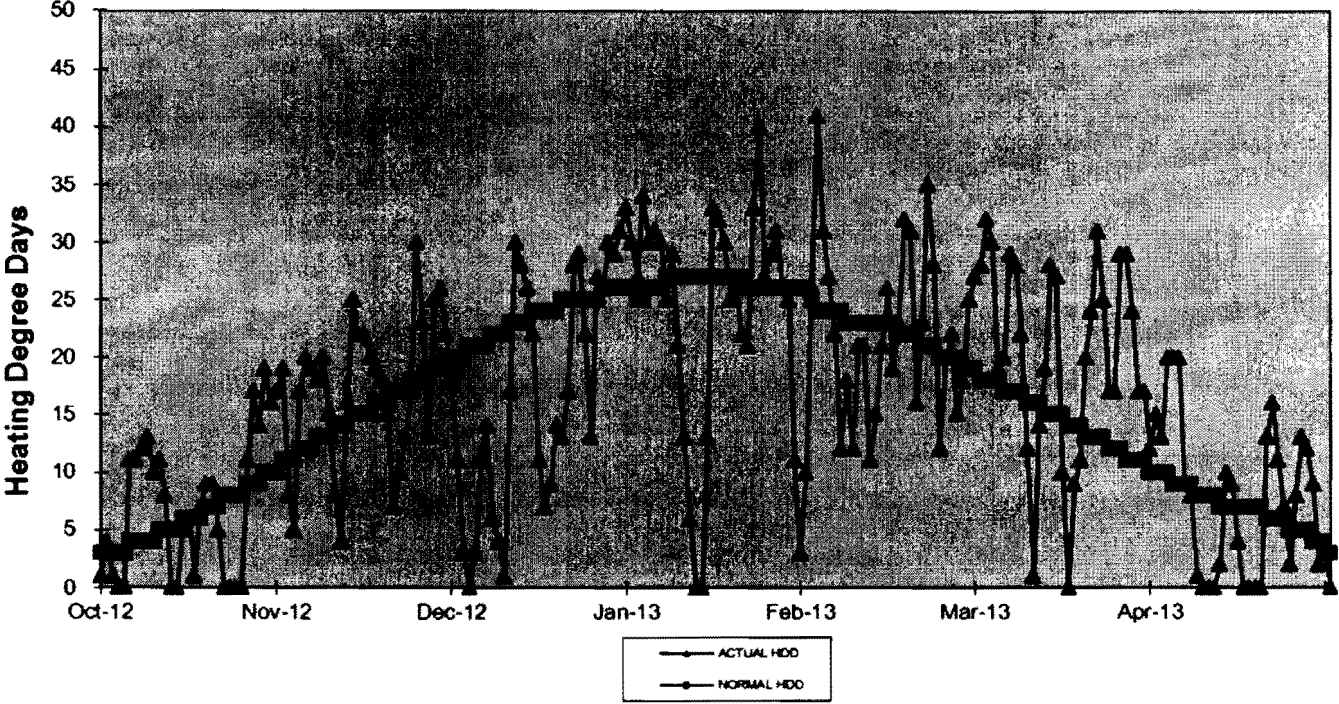
Atmos Energy Corporation
Comparison of Actual to Normal Heating Degree Days
Bristol Weather Station



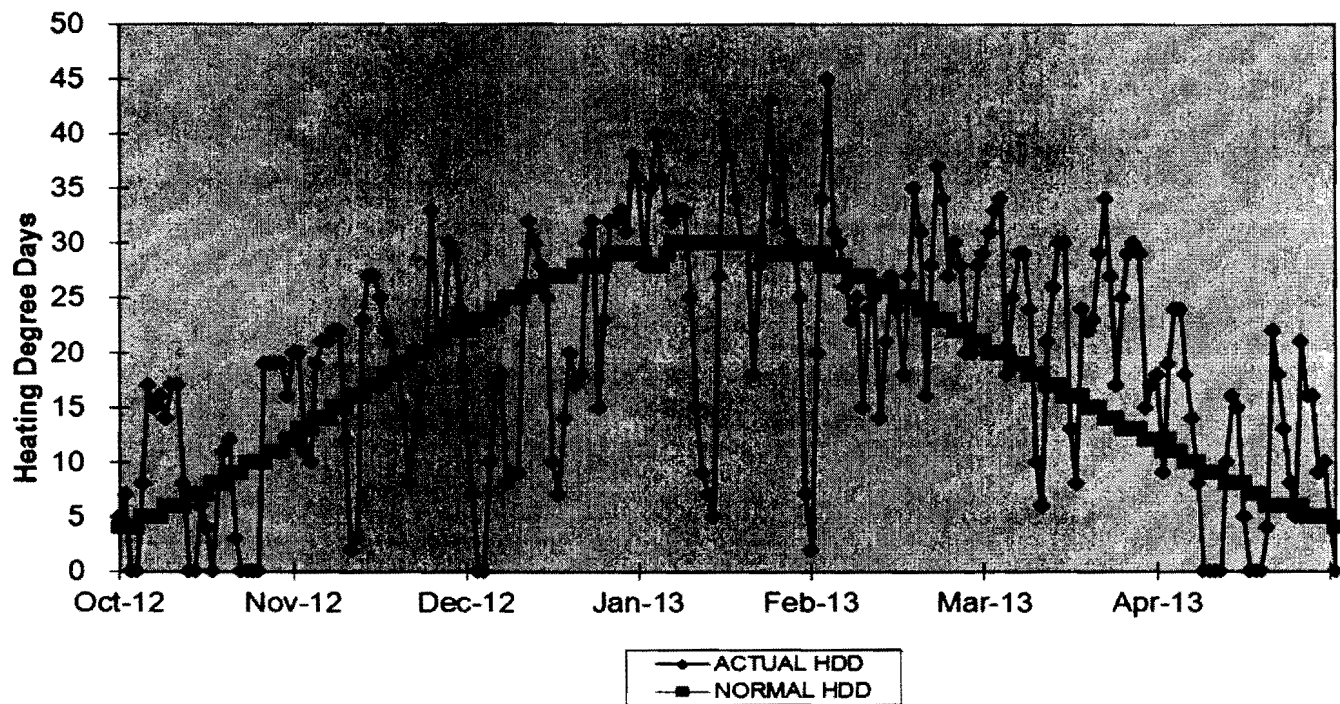
**Atmos Energy Corporation
Comparison of Actual to Normal Heating Degree Days
Knoxville Weather Station**



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

As noted in Section I of this report, Staff's audit resulted in one WNA finding. The Company used incorrect actual heating degree days for eleven (11) days out of the WNA period in their WNA calculations. This difference resulted in an over-recovery from the Company's customers of \$5,219.04. A detailed discussion of the finding follows.

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 848 weather observations (212 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 two (2) days for the Bristol weather station, six (6) days for the Knoxville weather station, one (1) day for the Nashville 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 report⁸ and the daily heating degree days that the Company used in calculating its WNA factors.⁹ 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>			
10/6/12	7	6	-1
10/23/12	1	4	3
		Total	<u>2</u>

⁸ This published report is the official data supplied by NOAA and is the standard that the Staff uses to audit the Weather Normalization Rider.

⁹ See Table below for detail of the differences.

Weather Station/ Date	Company Actual Degree Days	NOAA Actual Degree Days	Difference
<u>Knoxville:</u>			
10/9/12	11	13	2
10/20/12	9	10	1
1/10/13	10	8	-2
2/3/13	27	28	1
2/19/13	20	21	1
2/26/13	13	14	1
		Total	<u>4</u>
<u>Nashville:</u>			
1/31/13	25	26	1
		Total	<u>1</u>
<u>Paducah:</u>			
12/9/12	8	9	1
1/12/13	4	5	1
		Total	<u>2</u>
		Net of 4 stations	<u>2</u>

Recommendation

These heating degree day differences resulted in a **net over-recovery of \$5,219.04** 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 covering the period July 2012 through June 2013.

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 \$5,219.04 in net over-recovery is a reasonable assessment of the impact of these billing inaccuracies for the 2012-2013 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 the Audit Staff's Finding #1. As stated in Section I, except for the finding noted, Audit 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 over-collection in its next Actual Cost Adjustment filing with the TRA. Atmos has agreed to do so.**

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 and commercial bills based on meters read during the revenue months of November 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:

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

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

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER (Continued)

- HSF_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</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	10.43	.124185	112.80	.416839
Columbia Shelbyville Franklin Murfreesboro	11.34	.147091	112.93	.473009
Maryville Morristown	11.39	.122329	195.74	.392082
Johnson City Elizabethton Kingsport Greeneville Bristol	11.51	.112572	125.95	.489418

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. C

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:

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

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

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER (Continued)

- HSF_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	7.59	.135899	56.84	.407379
Columbia Shelbyville Franklin Murfreesboro	9.87	.148714	104.91	.497239
Maryville Morristown	9.33	.119599	114.31	.593839
Johnson City Elizabethton Kingsport Greeneville Bristol	8.89	.114758	113.15	.547136

C

R. I

R. I

R. I

R. I