

BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION

NASHVILLE, TENNESSEE

October 21, 2020

IN RE:

**AUDIT OF ATMOS ENERGY CORPORATION'S
WEATHER NORMALIZATION ADJUSTMENT FOR
THE PERIOD OCTOBER 1, 2019 TO APRIL 30, 2020**

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**DOCKET NO.
20-00092**

**ORDER ADOPTING WNA COMPLIANCE AUDIT REPORT OF
TENNESSEE PUBLIC UTILITY COMMISSION'S UTILITIES DIVISION**

This matter came before Chairman Kenneth C. Hill, Vice Chairman Herbert H. Hilliard, and Commissioner David F. Jones of the Tennessee Public Utility Commission (the "Commission" or "TPUC"), the voting panel assigned to this docket, during a regularly scheduled Commission Conference held on September 14, 2020¹ to consider the report of the Commission'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 year ended April 30, 2020. The WNA Audit Report (the "Report") is attached hereto as Exhibit 1 and incorporated by this reference.

The Company's WNA data was received for the period October 1, 2019 through April 30, 2020. The Staff completed its audit of the Company's filings on August 20, 2020 and filed its

¹ Due to the state of emergency declared by Governor Bill Lee relative to the Coronavirus Disease 2019 ("COVID-19") pandemic in Tenn. Exec. Order No. 14 on March 12, 2020, (superseded by Tenn. Exec. Order No. 15 on March 19, 2020 which was extended until September 30, 2020 in Tenn. Exec. Order No. 59 on August 28, 2020), the Commission Conference was held electronically via WebEx. The public health emergency places limitations on public gatherings and meetings in order to prevent the spread of COVID-19. In convening the Commission Conference electronically, the Commission relied upon Tenn. Exec. Order No. 16 (March 20, 2020), which was extended until September 30, 2020 by Tenn. Exec. Order No. 60 (August 28, 2020), and affirmed on the record that the electronic meeting was necessary to conduct the essential business of the agency and to protect the health, safety, and welfare of Tennesseans.

Report on August 28, 2020. The objective of the audit was to verify that the Company's calculations of the WNA adjustments were materially correct and that the Company has appropriately applied them to customers' bills during the period.

The WNA Audit Report contained two immaterial findings. In the first finding, the Company used incorrect Actual Degree Days ("ADD") for a combined total of nine (9) days in all four of its service areas during the audit period. The finding resulted in a net over-collection of WNA revenues of \$10,144.49. In the second finding, the Company used incorrect ADD and Normal Degree Days ("NDD") in the calculation of the WNA factors for all cycles during the period in all four of the Company's service areas. The errors were the result of incorrect formulas in the Company's spreadsheet that calculated the number of actual daily heating degree days and normal daily heating degree days for each cycle. For Atmos, the number of ADD and NDD for the previous meter read date are included in the total for the cycle, but the number of ADD and NDD for the current meter read date are excluded in the total for the cycle. The formula error resulted in the inclusion of not only the ADD and NDD for the current meter read date, but also the day previous to that date, thereby inflating the cycle ADD and cycle NDD and leading to incorrect WNA Factors for the cycle. The result was a net over-collection of \$5,159.56 in WNA Revenues.²

Due to the immateriality of the over-collection on a per customer basis, Staff recommended the net over-collection of \$15,304.05 for the two findings be added to the ACA Account balance in the Company's next Actual Cost Adjustment filing with the Commission. Additionally, Staff directed Company personnel to correct the formulas errors in its spreadsheets before the start of the new heating season to ensure the correct calculations of the WNA Factors.

² *Notice of Filing*, Exhibit A, pp. 11-13 (August 28, 2020).

The Company agreed with the Staff's recommendation. Except for the findings noted in the Report, the Staff concluded that Atmos appears to be correctly implementing the mechanics of its WNA Rider.³

During the regularly scheduled Commission Conference held on September 14, 2020, the voting panel considered the Staff's WNA Audit Report. The panel unanimously approved the August 28, 2020 WNA Audit Report as filed.

IT IS THEREFORE ORDERED THAT:

1. The Weather Normalization Adjustment Audit Report relative to Atmos Energy Corporation's costs for the year ended April 30, 2020, a copy of which is attached to this Order as Exhibit 1, is approved and adopted and the conclusions and recommendations contained therein are 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.

3. Any person who is aggrieved by the Commission's decision in this matter may file a Petition for Reconsideration with the Commission within fifteen (15) days from the date of this Order.

4. Any person who is aggrieved by the Commission's decision in this matter has the right to judicial review by filing a Petition for Review in the Tennessee Court of Appeals, Middle Section, within sixty (60) days from the date of this Order.

FOR THE TENNESSEE PUBLIC UTILITY COMMISSION:

**Chairman Kenneth C. Hill,
Vice Chairman Herbert H. Hilliard, and**

³ *Id.* at 14.

Commissioner David F. Jones concurring.

None dissenting.

ATTEST:

A handwritten signature in cursive script, appearing to read "Earl Taylor", written in black ink.

Earl R. Taylor, Executive Director

EXHIBIT 1

EXHIBIT A

COMPLIANCE AUDIT REPORT

OF

ATMOS ENERGY CORPORATION

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER

Docket No. 20-00092

TENNESSEE PUBLIC UTILITY COMISSION

UTILITIES DIVISION

August 2020

COMPLIANCE AUDIT
ATMOS ENERGY CORPORATION
WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER
DOCKET NO. 20-00092

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
GRAPHS COMPARING ACTUAL TO NORMAL HDD	7-10
VI. WNA AUDIT FINDINGS	11
VII. CONCLUSIONS AND RECOMMENDATIONS	14
ATTACHMENT 1 (WEATHER NORMALIZATION ADJUSTMENT RIDER TARIFF)	

COMPLIANCE AUDIT
ATMOS ENERGY CORPORATION
WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER
DOCKET NO. 20-00092

I. INTRODUCTION AND AUDIT OPINION

The subject of this compliance audit is the Weather Normalization Adjustment (“WNA”) Rider of Atmos Energy Corporation (“Atmos” or the “Company”). The objective of this audit is to determine if the WNA adjustments were calculated correctly and applied to customers’ bills appropriately between October 2019 and April 2020. As a result of the WNA Rider, the Company **surcharged a net \$1,386,061 to residential customers** and **surcharged a net \$1,566,913 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 calculations, showing that the Company **over-collected a net \$15,304.05** from customers. See Section VI for a description of the Staff’s findings. 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).

II. SCOPE OF AUDIT

In meeting the objective of the audit, 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 Annual Review Mechanism (ARM) filing;¹ and
- (3) the Company's calculation of the WNA factors to Staff's calculations.

Staff also selected a sample of customer bills to verify that the WNA factor had been correctly applied to the bills. Additionally, Staff 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 TPUC is responsible for compliance audits of the regulated gas companies. Kevin McClenathan of the Utilities Division conducted this audit.

¹ *In Re: Atmos Energy Corporation’s 2019 ARM Filing*, Docket No. 19-00018 (February 1, 2019).

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 3} 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 (“TETCO”), Columbia Gulf Transmission Corporation (“CGT”) and Texas Gas Transmission Corporation (“TGT”).

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

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

TGT 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: Request of Atmos Energy Corporation for Approval of Contract Regarding Gas Commodity Requirements and Management of Transportation/Storage Contracts*, Docket No. 16-00008 (January 20, 2016).

⁴ Effective April 5, 2017, the name of Tennessee Regulatory Authority changed to the Tennessee Public Utility Commission and board members of the agency are now known as Commissioners rather than Directors.

⁵ Weather data is published monthly by 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 Commission, Atmos' 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' 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 2019– 2020 heating season, in each of its four service areas.⁹ During the past winter, overall, weather was 13.4% warmer in the Bristol area, 14.9% warmer in the Knoxville area, 13.7% warmer in the Nashville area, and 7.4% warmer in the Paducah area compared to normal weather.

Bristol:

Month	Actual Heating Degree Days	Normal Heating Degree Days	Warmer/Colder than Normal
September 2019	0	37	Warmer
October 2019	163	264	Warmer
November 2019	640	551	Colder
December 2019	661	810	Warmer
January 2020	689	863	Warmer
February 2020	646	698	Warmer
March 2020	361	537	Warmer
April 2020	330	268	Colder
Total	<u>3490</u>	<u>4028</u>	13.4% Warmer

Knoxville:

Month	Actual Heating Degree Days	Normal Heating Degree Days	Warmer/Colder than Normal
September 2019	0	17	Warmer
October 2019	131	196	Warmer
November 2019	560	462	Colder
December 2019	549	721	Warmer
January 2020	607	798	Warmer
February 2020	554	624	Warmer
March 2020	267	433	Warmer
April 2020	<u>260</u>	<u>191</u>	Colder
Total	<u>2928</u>	<u>3442</u>	14.9% 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 (KTRE) for the Bristol area, McGhee Tyson Airport (KTYG) 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
September 2019	0	17	Warmer
October 2019	143	173	Warmer
November 2019	559	439	Colder
December 2019	503	719	Warmer
January 2020	610	786	Warmer
February 2020	576	615	Warmer
March 2020	300	442	Warmer
April 2020	<u>222</u>	<u>186</u>	Colder
Total	<u>2913</u>	<u>3377</u>	13.7% Warmer

Paducah:

Month	Actual Heating Degree Days	Normal Heating Degree Days	Warmer/Colder than Normal
September 2019	0	32	Warmer
October 2019	227	228	Warmer
November 2019	660	510	Colder
December 2019	679	823	Warmer
January 2020	758	911	Warmer
February 2020	703	716	Warmer
March 2020	362	519	Warmer
April 2020	<u>280</u>	<u>224</u>	Colder
Total	<u>3669</u>	<u>3963</u>	7.4% Warmer

Note: Graphs showing a visual 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** \$1,386,061 and commercial customers were **surcharged** \$1,566,913. This equates to an increase in residential sales revenues of 2.52% and an increase in commercial sales revenues of 4.54% (See Table 1). This surcharge is an increase from the amount surcharged during the previous year, when residential and commercial customers were surcharged \$400,577 and \$487,475 respectively. (See Table 2 for a comparison of the last three heating seasons.)

Table 1

**Impact of WNA Rider on Residential & Commercial Revenues
October 2019- April 2020**

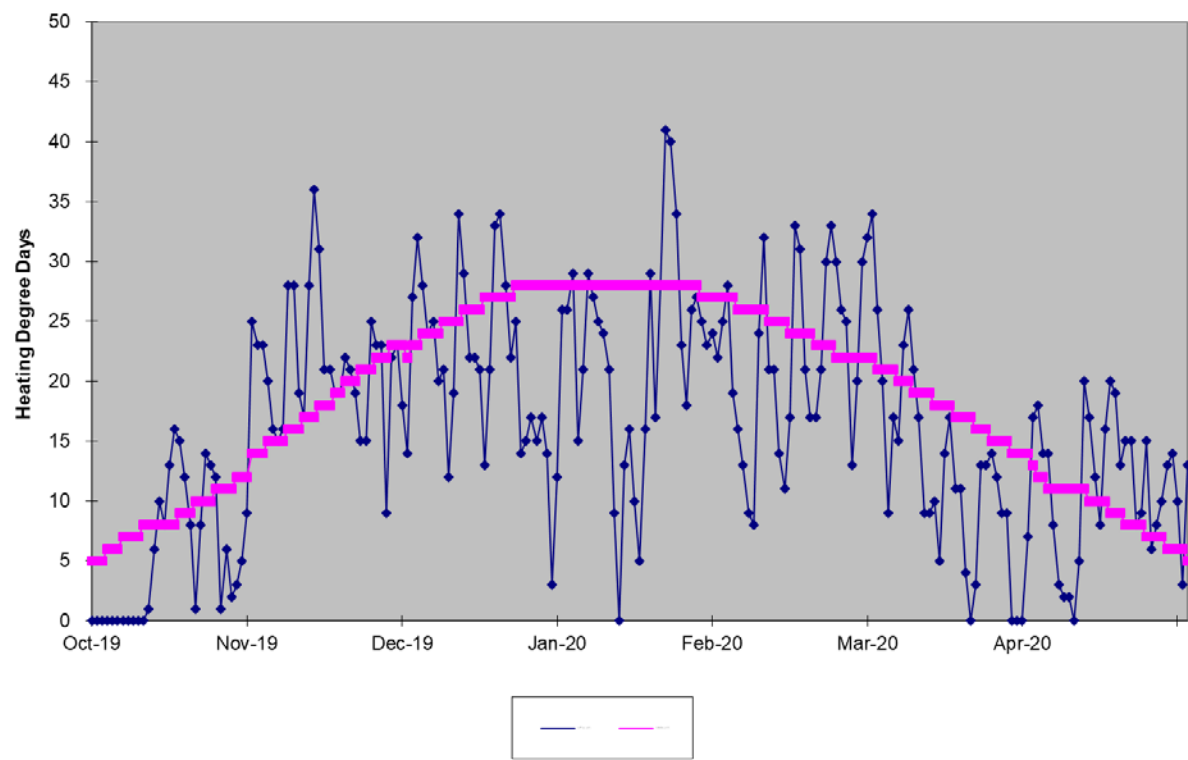
	<u>WNA Rider Revenues</u>	<u>Total Revenues</u>	<u>Percentage Impact of WNA Rider On Revenues</u>
Residential Sales	\$1,386,061	\$55,082,595	2.52%
Commercial Sales	<u>1,566,913</u>	<u>34,512,841</u>	<u>4.54%</u>
Total	<u>\$2,952,974</u>	<u>\$89,595,436</u>	<u>3.30%</u>

Table 2

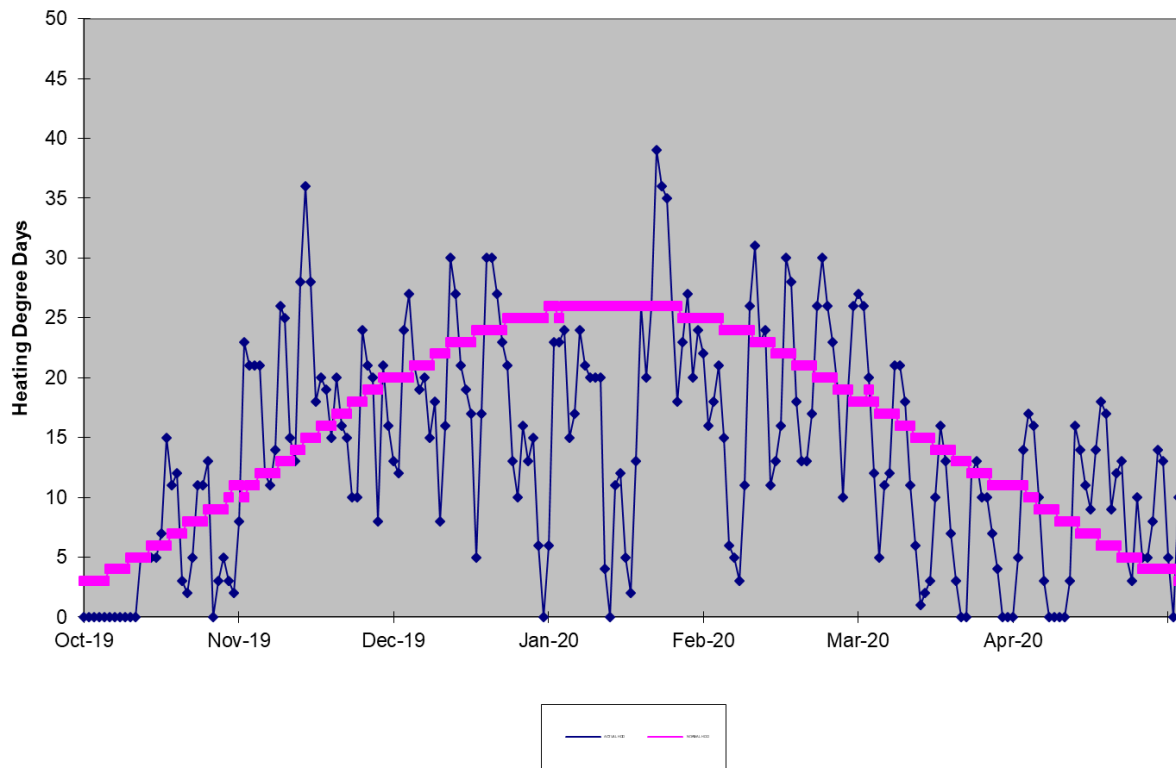
**Amount Surcharged (Refunded)
2017 - 2020**

	<u>Residential</u>	<u>Commercial</u>	<u>Total Surcharge/(Refund)</u>
10/17-4/18	183,995	178,165	362,160
10/18-4/19	400,577	487,475	888,052
10/19-4/20	<u>1,386,061</u>	<u>1,566,913</u>	<u>2,952,974</u>
Total	<u>\$ 1,970,633</u>	<u>\$ 2,232,553</u>	<u>\$ 4,203,186</u>

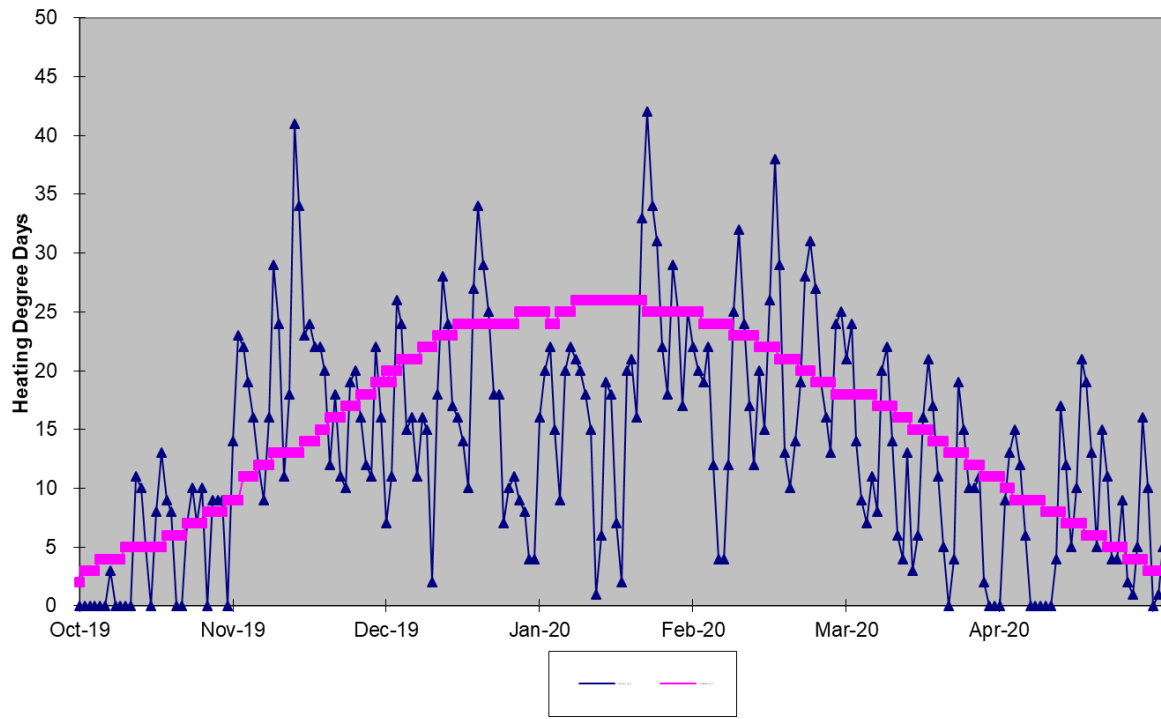
**Atmos Energy Corporation
Comparison of Actual to Normal Heating Degree Days
Bristol Weather Station**



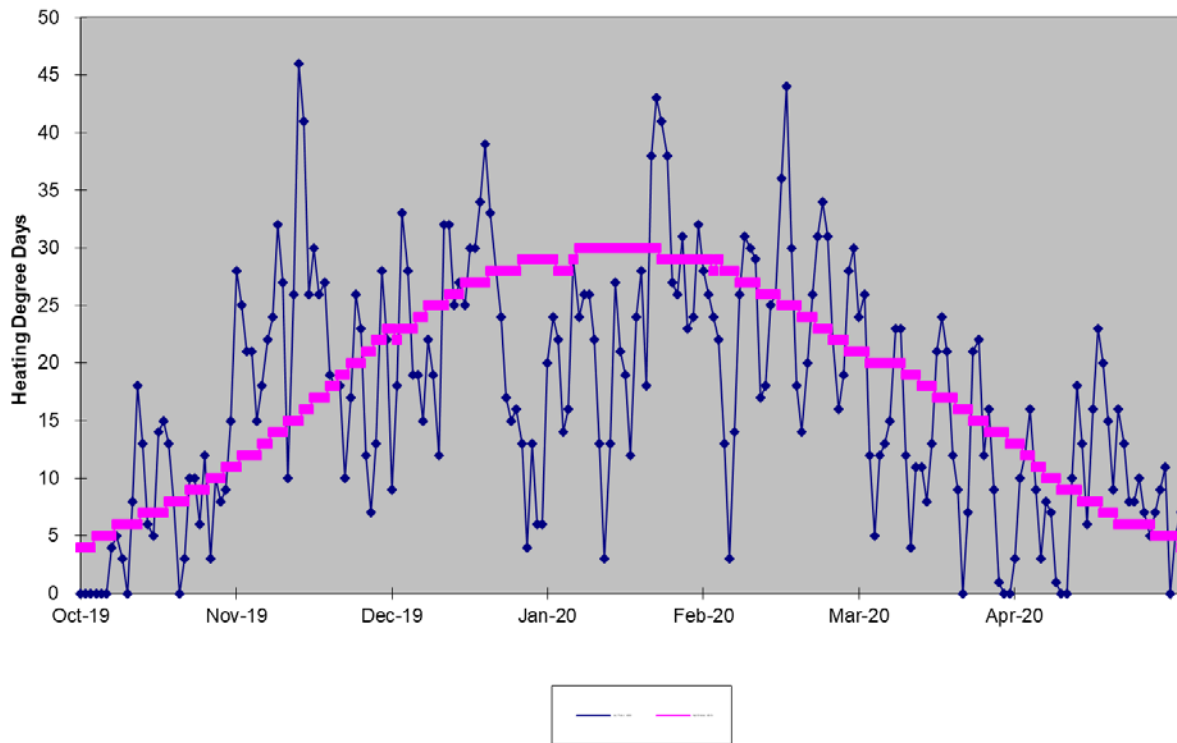
**Atmos Energy Corporation
Comparison of Actual to Normal Heating Degree Days
Knoxville Weather Station**



**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 (ADD) in the calculation of the WNA factor.

Discussion

The audit period consisted of 976 weather observations (244 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 three (3) days for the Bristol weather station, one (1) day for the Knoxville weather station, two (2) days for the Nashville weather station, and three (3) days for the Paducah weather station for a total of nine (9) 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>			
12/05/2019	24	25	1
12/07/2019	20	21	1
1/01/2020	26	27	1
		Total	<u>3</u>

Weather Station/ Date	Company Actual Degree Days	NOAA Actual Degree Days	Difference
<u>Knoxville:</u>			
2/10/2020	24	22	-2
		Total	<u>-2</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>Nashville:</u>			
10/12/2019	11	12	1
1/18/2020	16	17	1
		Total	<u>2</u>

Weather Station/ Date	Company Actual Degree Days	NOAA Actual Degree Days	Difference
<u>Paducah:</u>			
10/29/2019	9	10	1
11/02/2019	21	22	1
12/26/2019	4	5	1
		Total	<u>3</u>

These heating degree day differences resulted in a **net over-recovery of \$10,144.49** in WNA revenues.¹²

Recommendation

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 available Actual Cost Adjustment filing, as has been this Commission's 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 \$10,144.49 net over-recovery is a reasonable assessment of the impact of these billing inaccuracies for the 2019-2020 heating season. We agree to include this correction in the next ACA filing as recommended.

¹² The net over-recovery is comprised of \$4,582.26 over-recovery for Bristol, \$2,089.57 under-recovery for Knoxville, \$7,186.94 over-recovery for Nashville, and \$464.87 over-recovery for Paducah.

FINDING #2:

Exception

The Company used inaccurate cycle actual heating degree days (ADD) and cycle normal heating degree days (NDD) in its weather normalization adjustment (WNA) factor calculations.

Discussion

In calculating the WNA factors for all four weather stations for the entire heating season under review, the Company's calculations contained formula errors related to the cumulative actual and normal heating degree days contained in each cycle. Each cycle is made up of a number of days that are defined by the previous meter read date and the current meter read date.¹³ In order to calculate the cumulative daily heating degree days contained in a particular cycle, Atmos has elected to include the number of heating degree days for the previous meter read date and exclude the number of heating degree days for the current meter read date. This practice was established at the onset of the WNA Rider and is consistently applied each heating season.

During the current audit, Staff discovered that the formulas contained in the Company's calculations correctly excluded the number of heating degree days for the current meter read date. The formulas, however, included not only the previous meter read date, but also the date immediately preceding the previous meter read date. This formula error, in effect, included too many heating degree days for each cycle actual and normal heating degree days calculation.

The result of these errors was an over-collection of \$169.73 from customers in the Bristol area, an under-collection of \$163.47 from customers in the Knoxville area, an over-collection of \$6,443.51 from customers in the Nashville area and an under-collection of \$1,290.22 from customers in the Paducah area, for a **total net over-collection of \$5,159.56** in WNA revenues from CGC's customers.

Recommendation

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

In addition, Staff would direct Company personnel to correct the formulas noted in this finding prior to the beginning of the 2020-2021 heating season.

Company Response

The Company agrees with Staff findings and will add this over-collection to the Company's Actual Cost Adjustment Account Balance in its next ACA audit filing. The Company will correct noted formulas prior to the beginning of the 2020-2021 heating season.

¹³ The difference between the current meter read date and the previous meter read date equals the number of days in the cycle.

VII. CONCLUSIONS AND RECOMMENDATIONS

The Company has satisfactorily responded to Staff's Finding #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 \$15,304.05 in its next Actual Cost Adjustment filing with the Commission, covering the period July 2019 through June 2020 if possible. Atmos has agreed to do so.**

Regarding the results of the last WNA Audit in Docket No. 19-00065 covering the 2018-2019 heating season, the net over-collection of \$37,284.64 was to be credited to the ACA Account in the next ACA filing (Docket No. 19-00075). The timing of the approval of Staff's report and the Company's filing of the ACA for the period July 1, 2018 – June 30, 2019, however, did not allow Atmos enough time to make this adjustment in Docket No. 19-00075. **Staff expects that the adjustment will be made to the next filing covering the period July 1, 2019 – June 30, 2020 and will confirm this fact in the next WNA report.**

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

ATTACHMENT 1

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER (Continued)

HSF _i	=	heat sensitive factor for the i th 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 i th 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	6.58	.144662	74.37	.544390	I
Columbia Shelbyville Franklin Murfreesboro	9.80	.157611	119.14	.597628	I, R
Maryville Morristown	7.71	.122967	107.89	.641464	I, R
Johnson City Elizabethton Kingsport Greeneville Bristol	7.34	.125387	115.48	.636840	I, R