

**BEFORE THE TENNESSEE REGULATORY AUTHORITY**

**NASHVILLE, TENNESSEE**

**December 7, 2007**

|  |   |                   |
|--|---|-------------------|
| <b>IN RE:</b>                              | ) |                   |
|  | ) |                   |
| <b>AUDIT OF ATMOS ENERGY CORPORATION'S</b> | ) | <b>DOCKET NO.</b> |
| <b>WEATHER NORMALIZATION ADJUSTMENT</b>    | ) | <b>07-00184</b>   |
| <b>FOR THE PERIOD NOVEMBER 1, 2006</b>     | ) |                   |
| <b>THROUGH APRIL 30, 2007</b>              | ) |                   |

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



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This matter came before Chairman Eddie Roberson, Director Sara Kyle, and Director Ron 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 10, 2007, for consideration of the Audit Report of the Authority's Utilities Division (the "Staff") resulting from the Staff's audit of Atmos Energy Corporation's ("Atmos") Weather Normalization Adjustment ("WNA") for the period November 1, 2006 through April 30, 2007. The WNA Audit Report (the "Audit Report") is attached hereto as Exhibit 1 and incorporated in this Order by reference. The Audit Report was filed on August 21, 2007.

The Staff found that Atmos used incorrect actual degree days for seventeen days in calculation of the WNA factor which resulted in an under-recovery of \$17,985. The Staff recommended that the net under-recovery be included in next year's actual cost adjustment filing. The Audit Report concludes that Atmos is correctly implementing the WNA Rider to its tariff. After consideration of the Audit Report, the TRA unanimously approved 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 is incorporated in this Order as if fully rewritten herein.

  
Eddie Roberson, Chairman  
Sara Kyle, Director  
Ron Jones, Director

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BEFORE THE TENNESSEE REGULATORY AUTHORITY  
T.R.A. DOCKET ROOM

NASHVILLE, TENNESSEE

August 21, 2007

IN RE: )  
)  
ATMOS ENERGY CORPORATION ) Docket No. 07-00184  
WEATHER NORMALIZATION ADJ. (WNA) AUDIT )

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

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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 2007 Atmos Energy Corporation WNA Audit Report in this docket and would respectfully state as follows:

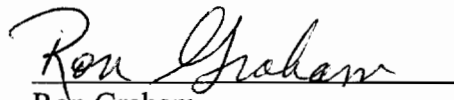
1. The present docket was opened by the Authority to hear matters arising out of the audit of Atmos Energy Corporation (the "Company").
2. The Company's WNA filings were received on November 1, 2006, through May 1, 2007, and the Staff completed its audit of same on August 16, 2007.
3. On August 16, 2007, the Utilities Division issued its preliminary WNA audit findings to the Company, and on August 20, 2007, the Company responded thereto.
4. The preliminary WNA audit report was modified to reflect the Company's responses and a final WNA audit report (the "Report") resulted therefrom. The Report is attached hereto as Exhibit A and is fully incorporated herein by this reference. The Report

**Exhibit 1**

contains the audit findings of the Utilities Division, the Company's responses thereto and the recommendations of the Utilities Division in connection therewith.

5. 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:

  
\_\_\_\_\_  
Ron Graham  
Utilities Division  
Tennessee Regulatory Authority

### **CERTIFICATE OF SERVICE**

I hereby certify that on this 21<sup>st</sup> day of August, 2007, 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:

Eddie Roberson  
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

Mr. Thomas H. Petersen  
Director of Rates  
Atmos Energy Corporation  
P.O. Box 650205  
Dallas, TX 75265-0205

Mr. A. Scott Ross, Esq.  
Neal & Harwell, PLC  
150 Fourth Avenue, North, Suite 2000  
Nashville, TN 37219-2498

  
\_\_\_\_\_  
Ron Graham

# **EXHIBIT A**

**COMPLIANCE AUDIT REPORT**

**OF**

**ATMOS ENERGY CORPORATION**

**WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER**

**Docket No. 07-00184**

**PREPARED BY:  
RON GRAHAM**

**TENNESSEE REGULATORY AUTHORITY**

**UTILITIES DIVISION**

**AUGUST 2007**

**COMPLIANCE AUDIT**  
**ATMOS ENERGY CORPORATION**  
**WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER**  
**DOCKET NO. 07-00184**

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**COMPLIANCE AUDIT**  
**ATMOS ENERGY CORPORATION**  
**WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER**  
**DOCKET NO. 07-00184**

**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 2006 and April 2007. As a result of the WNA Rider, the Company surcharged a net \$442,504 and \$372,014 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.

The Audit Staff’s (“Staff”) audit results showed that the Company under-collected \$17,985 from its customers. See Section VI, Finding #1 for a description of the Staff’s finding. This amount is considered immaterial compared to the total amount billed. 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 factor to Staff's calculation.

The Staff selected a sample of customer bills to verify that the WNA factor had been correctly applied to the bills. The Audit Staff also examined each sample bill to determine whether the Base Rates and Purchased Gas Adjustments were billed correctly.

Ron Graham and Paul Greene 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")<sup>1</sup> 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**

On September 26, 1991, the Tennessee Public Service Commission<sup>2</sup> ("TPSC") approved a three-year experimental Weather Normalization Adjustment Rider<sup>3</sup> to the tariffs of Chattanooga Gas Company, Nashville Gas Company, a division of Piedmont Gas Company, Inc. and United Cities Gas Company.<sup>4</sup> The WNA Rider was to be applied to residential and commercial customers' bills during the months of October through May of each year (See Attachment 1). On June 21, 1994, the TPSC issued an Order authorizing the above mentioned gas companies to permanently implement an amended version<sup>5</sup> of the WNA Rider. Atmos is authorized to calculate WNA adjustments during the months of November through April of each year. The TRA Staff audits these calculations annually.

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<sup>1</sup> Atmos Energy Marketing is the wholly owned marketing arm of Atmos Energy Corporation.

<sup>2</sup> By legislative action, the Tennessee 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).

<sup>3</sup> See petition of Chattanooga Gas Company, Nashville Gas Company, a Division of Piedmont Natural Gas Company, Inc. and United Cities Gas Company for a Rulemaking Hearing to Adopt a Weather Normalization Adjustment (WNA) Rider, Docket No. 91-01712, Order (September 26, 1991).

<sup>4</sup> On July 31, 1997, United Cities Gas Company was acquired by Atmos Energy Corporation located in Dallas, Texas. Following the acquisition, the Company continued operating as United Cities Gas Company, a division of Atmos Energy Corporation. On September 4, 2002, Atmos Energy Corporation filed tariffs with the Authority to cease the use of the name "United Cities Gas Company" and to reflect the corporate name of "Atmos Energy Corporation." Effective October 1, 2002, Atmos Energy Corporation announced that all divisions of the company would start doing business as Atmos Energy™.

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

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.

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 overearnings 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 underearn.

In recognition of this fact, the TRA approved an experimental WNA mechanism, which became permanent on June 21, 1994, to reduce the impact abnormal weather has on the customers' bills and on the gas utilities' operations. 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.

## **V. IMPACT OF WEATHER NORMALIZATION ADJUSTMENT RIDER**

The graphs appearing at the end of this section show a comparison of actual heating degree days to normal heating degree days for Atmos Energy Corporation during the 2006 - 2007 heating season, in each of its four service areas.<sup>6</sup> During the past winter, overall, weather was 2.89% warmer in the Bristol area, 4.44% warmer in the Knoxville area, 11.72% warmer in the Nashville area, and 1.47% warmer in the Paducah area compared to normal weather. The following tables show a comparison of the actual degree days ("ADD") to normal degree days ("NDD") by month for each of the four weather stations.

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<sup>6</sup> 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 (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.

**Bristol:**

| Month         | Actual Heating Degree Days | Normal Heating Degree Days | Warmer/Colder than Normal |
|---------------|----------------------------|----------------------------|---------------------------|
| October 2006  | 358                        | 268                        | Colder                    |
| November 2006 | 526                        | 531                        | Warmer                    |
| December 2006 | 726                        | 805                        | Warmer                    |
| January 2007  | 819                        | 937                        | Warmer                    |
| February 2007 | 857                        | 756                        | Colder                    |
| March 2007    | 387                        | 553                        | Warmer                    |
| April 2007    | <u>345</u>                 | <u>284</u>                 | Colder                    |
|               |                            |                            |                           |
| Total         | <u>4,018</u>               | <u>4,134</u>               | Warmer                    |

**Knoxville:**

| Month         | Actual Heating Degree Days | Normal Heating Degree Days | Warmer/Colder than Normal |
|---------------|----------------------------|----------------------------|---------------------------|
| October 2006  | 271                        | 204                        | Colder                    |
| November 2006 | 476                        | 460                        | Colder                    |
| December 2006 | 633                        | 726                        | Warmer                    |
| January 2007  | 732                        | 853                        | Warmer                    |
| February 2007 | 745                        | 665                        | Colder                    |
| March 2007    | 277                        | 463                        | Warmer                    |
| April 2007    | <u>288</u>                 | <u>203</u>                 | Colder                    |
|               |                            |                            |                           |
| Total         | <u>3,422</u>               | <u>3,574</u>               | Warmer                    |

**Nashville:**

| Month         | Actual Heating Degree Days | Normal Heating Degree Days | Warmer/Colder than Normal |
|---------------|----------------------------|----------------------------|---------------------------|
| October 2006  | 222                        | 190                        | Colder                    |
| November 2006 | 407                        | 451                        | Warmer                    |
| December 2006 | 568                        | 729                        | Warmer                    |
| January 2007  | 714                        | 870                        | Warmer                    |
| February 2007 | 774                        | 678                        | Colder                    |
| March 2007    | 255                        | 466                        | Warmer                    |
| April 2007    | <u>269</u>                 | <u>201</u>                 | Colder                    |
|               |                            |                            |                           |
| Total         | <u>3,209</u>               | <u>3,585</u>               | Warmer                    |

**Paducah:**

| Month         | Actual<br>Heating Degree<br>Days | Normal<br>Heating Degree<br>Days | Warmer/Colder<br>than Normal |
|---------------|----------------------------------|----------------------------------|------------------------------|
| October 2006  | 308                              | 197                              | Colder                       |
| November 2006 | 503                              | 483                              | Colder                       |
| December 2006 | 681                              | 797                              | Warmer                       |
| January 2007  | 848                              | 954                              | Warmer                       |
| February 2007 | 862                              | 736                              | Colder                       |
| March 2007    | 300                              | 503                              | Warmer                       |
| April 2007    | <u>311</u>                       | <u>199</u>                       | Colder                       |
|               |                                  |                                  |                              |
| Total         | <u>3,813</u>                     | <u>3,869</u>                     | Warmer                       |

Note: Charts showing a comparison of actual degree days compared to normal degree days can be found at the end of this Section.

Since overall the winter was warmer than normal, the net impact the WNA Rider had on the Company's revenues was that residential and commercial customers were **surcharged** \$442,504 and \$372,014 respectively. This equates to an increase in revenues from residential and commercial sales of 0.63% and 0.85% respectively. (See Table 1) During the previous year, warmer than normal weather resulted in residential and commercial customers being **surcharged** \$933,261 and \$485,878 respectively. (See Table 2 for a comparison of the last three heating seasons.)

Table 1

**Impact of WNA Rider on Residential & Commercial Revenues  
November 2006 - April 2007**

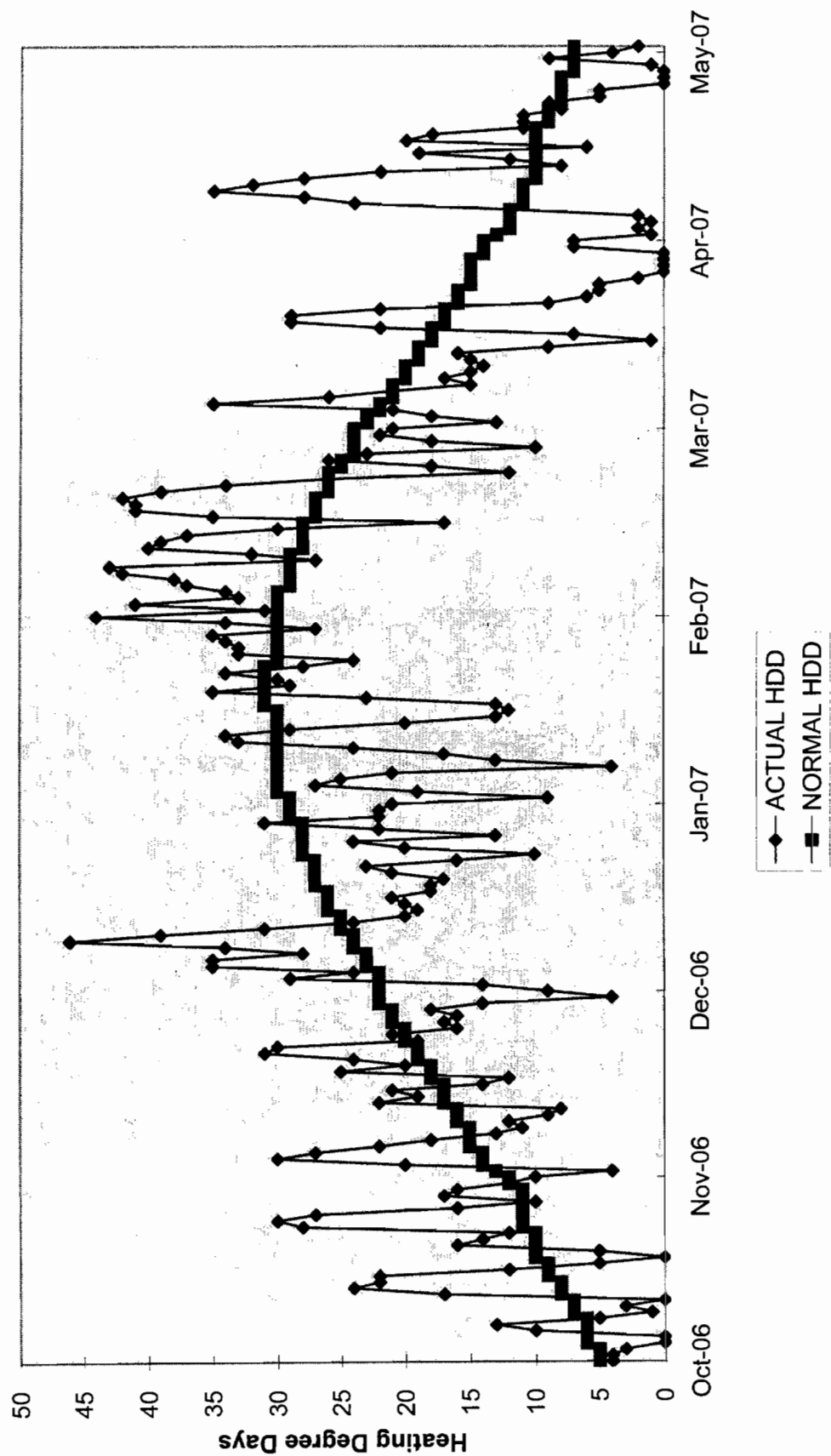
|                   | <u>WNA Rider<br/>Revenues</u> | <u>Total<br/>Revenues</u> | <u>Percentage<br/>Impact of<br/>WNA Rider<br/>On Revenues</u> |
|-------------------|-------------------------------|---------------------------|---|
| Residential Sales | \$442,504                     | \$69,704,425              | 0.63%   |
| Commercial Sales  | <u>372,014</u>                | <u>43,877,961</u>         | 0.85%   |
| Total             | <u>\$814,518</u>              | <u>\$113,582,386</u>      | 0.72%   |

Table 2

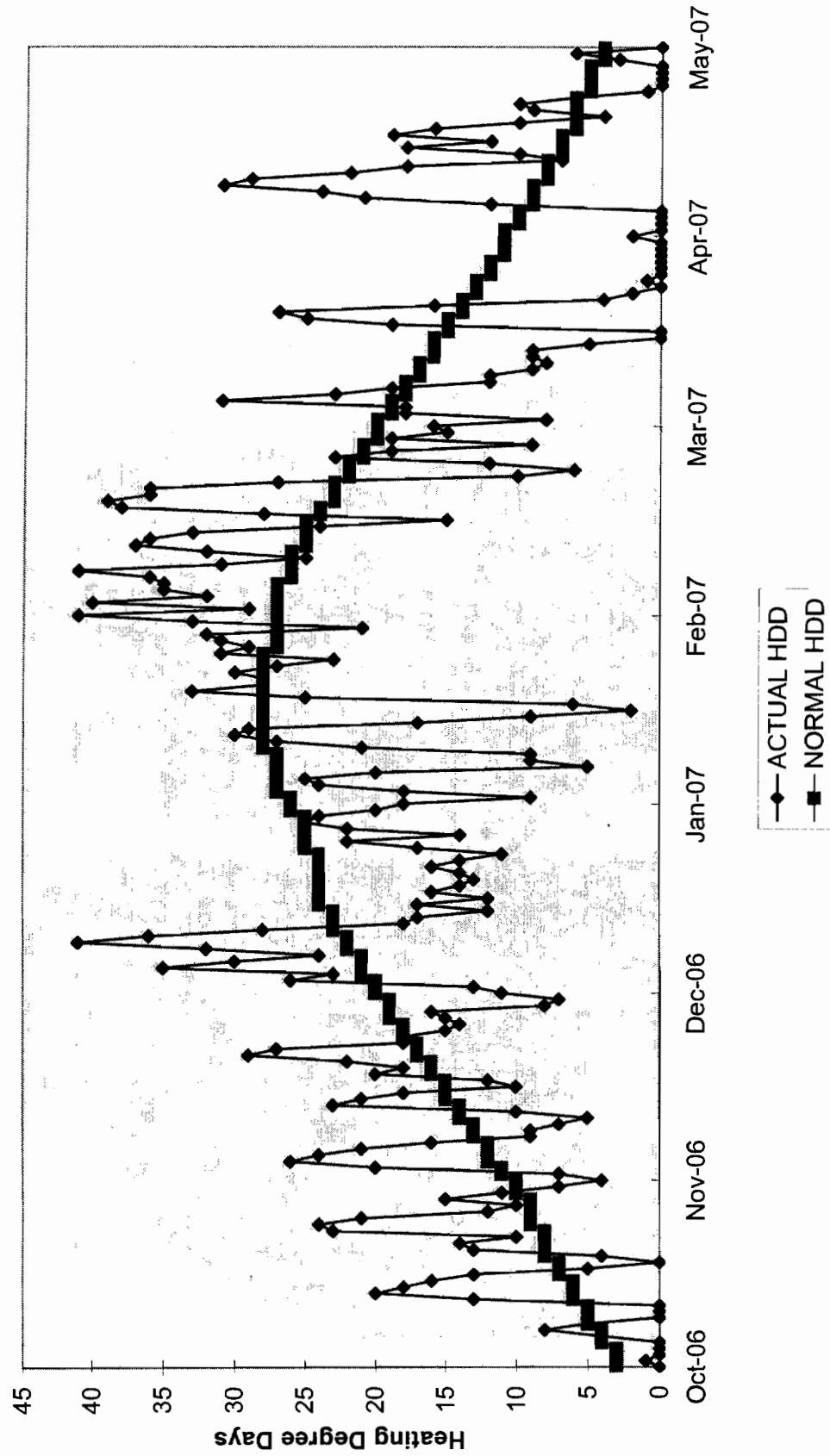
**Amount Surcharged (Refunded)  
2004 - 2007**

|            | <u>Residential</u> | <u>Commercial</u>  | <u>Total<br/>Surcharge/(Refund)</u> |
|------------|--------------------|--------------------|-------------------------------------|
| 11/04-4/05 | \$1,728,633        | \$787,439          | \$2,516,072                         |
| 11/05-4/06 | 933,261            | 485,878            | 1,419,139                           |
| 11/06-4/07 | <u>442,504</u>     | <u>372,014</u>     | <u>814,518</u>                      |
| Total      | <u>\$3,104,398</u> | <u>\$1,645,331</u> | <u>\$4,749,729</u>                  |

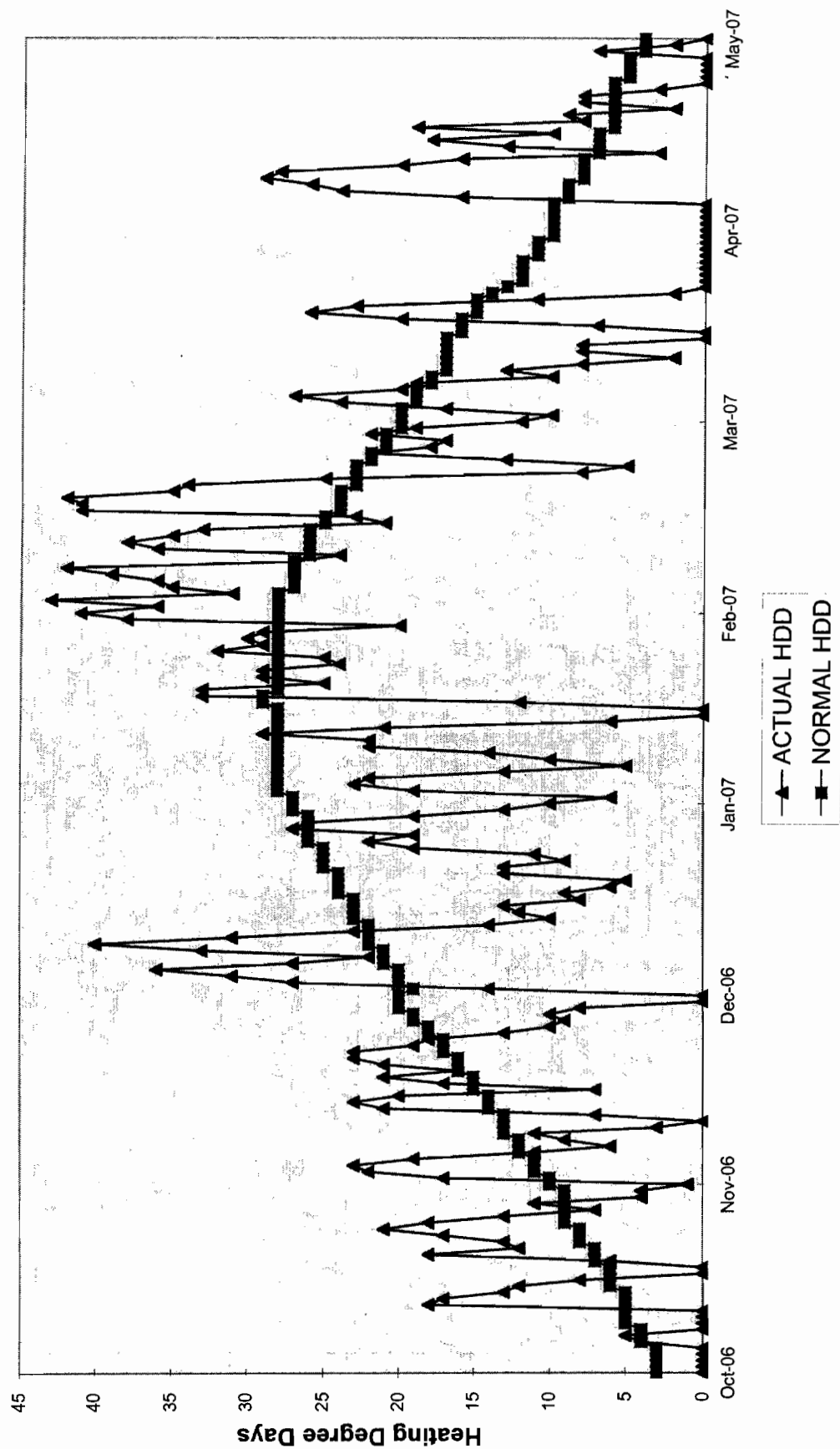
**Atmos Energy Corporation**  
**Comparison of Actual to Normal Heating Degree Days**  
**Bristol Weather Station**



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

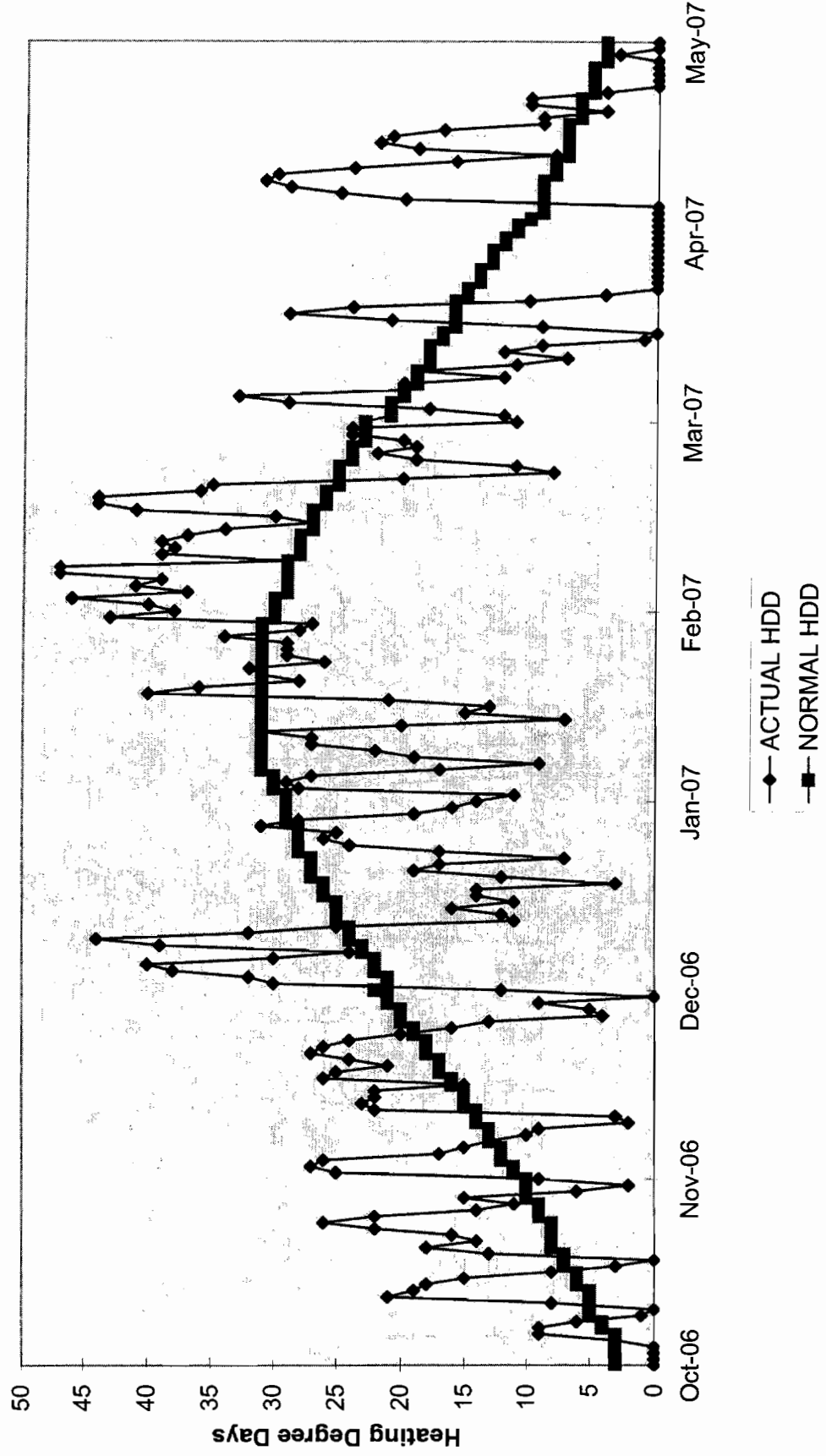


**Atmos Energy Corporation**  
**Comparison of Actual to Normal Heating Degree Days**  
**Nashville Weather Station**





**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 finding. The finding identified that the Company used incorrect actual degree days for seventeen (17) days totaling a net difference for the heating season of seven (7) actual degree days in their WNA calculations. This difference resulted in an under-recovery from the Company's customers of \$17,985.

The finding is considered immaterial when compared with the total WNA revenue and Staff believes that the Company is materially complying with its WNA Rider.

### **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 three (3) days for the Bristol weather station, three (3) days for the Knoxville weather station, nine (9) days for the Nashville weather station and two (2) days for the Paducah weather station for a total of seventeen (17) weather observations. These inaccuracies are due to differences in daily heating degree days published in NOAA's Local Climatological Data report<sup>7</sup> and the daily heating degree days that the Company used in calculating its WNA factors.<sup>8</sup> The Company must obtain actual degree day information from a weather information source on a real time basis. The WNA Rider and the Audit Staff's audit of this Rider are based on the official NOAA publication. Staff recognizes that discrepancies can be caused by the Company's weather information source through no fault of the Company.

| <b>Weather Station/<br/>Date</b> | <b>Company<br/>Actual Degree Days</b> | <b>NOAA<br/>Actual Degree Days</b> | <b>Difference</b> |
|----------------------------------|---------------------------------------|------------------------------------|-------------------|
| <b><u>Bristol:</u></b>           |                                       |                                    |                   |
| 10/1/06                          | 3                                     | 4                                  | 1                 |
| 3/2/07                           | 16                                    | 18                                 | 2                 |
| 3/11/07                          | 14                                    | 15                                 | 1                 |
|                                  |                                       | Total                              | <u>4</u>          |

<sup>7</sup> This published report is the official data supplied by NOAA and is the standard that the Staff uses to audit the Weather Normalization Rider.

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

| <b>Weather Station/<br/>Date</b> | <b>Company<br/>Actual Degree Days</b> | <b>NOAA<br/>Actual Degree Days</b> | <b>Difference</b> |
|----------------------------------|---------------------------------------|------------------------------------|-------------------|
| <b><u>Knoxville:</u></b>         |                                       |                                    |                   |
| 11/20/06                         | 28                                    | 29                                 | 1                 |
| 11/30/06                         | 4                                     | 11                                 | 7                 |
| 3/11/07                          | 8                                     | 9                                  | 1                 |
|                                  |                                       | Total                              | <u>9</u>          |
| <b><u>Nashville:</u></b>         |                                       |                                    |                   |
| 10/22/06                         | 12                                    | 13                                 | 1                 |
| 11/10/06                         | 1                                     | 0                                  | -1                |
| 11/13/06                         | 22                                    | 23                                 | 1                 |
| 11/15/06                         | 12                                    | 7                                  | -5                |
| 12/22/06                         | 10                                    | 11                                 | 1                 |
| 12/26/06                         | 29                                    | 27                                 | -2                |
| 1/7/07                           | 19                                    | 14                                 | -5                |
| 2/8/07                           | 35                                    | 36                                 | 1                 |
| 2/21/07                          | 4                                     | 5                                  | 1                 |
|                                  |                                       | Total                              | <u>-8</u>         |
| <b><u>Paducah:</u></b>           |                                       |                                    |                   |
| 12/1/06                          | 29                                    | 30                                 | 1                 |
| 04/04/07                         | 19                                    | 20                                 | 1                 |
|                                  |                                       | Total                              | <u>2</u>          |
|                                  |                                       | <b>Net of 4 Stations</b>           | <u><u>7</u></u>   |

### **Recommendation**

This degree day difference resulted in a **net under-recovery of \$17,985** in WNA revenues. Since the dollar amount of this finding is immaterial on a per customer basis, Staff recommends that the Company include the under-recovery in its next Actual Cost Adjustment filing, as has been its custom.

### **Company Response**

The company regrets the billing inaccuracies that resulted from use of third party weather data and continues to seek to improve our processes.

## **VII. RECOMMENDATIONS AND CONCLUSIONS**

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. We recommend that the Company include the over-collection in its next Actual Cost Adjustment filing with the TRA. This is the method the Company has customarily used.

Audit Staff acknowledges and appreciates the cooperation of Atmos personnel during the course of this audit.

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:

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

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<sub>i</sub> = heat sensitive factor for the i<sup>th</sup> 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<sub>i</sub> = base load sales for the i<sup>th</sup> 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</u>      |                             | <u>Commercial</u>       |                             |
|---|-------------------------|-----------------------------|-------------------------|-----------------------------|
|   | <u>Base use<br/>Ccf</u> | <u>Heat use<br/>Ccf/HDD</u> | <u>Base use<br/>Ccf</u> | <u>Heat use<br/>Ccf/HDD</u> |
| Union City  | 13.906292               | .156369                     | 124.595029              | .453633                     |
| Columbia<br>Shelbyville<br>Franklin<br>Murfreesboro                 | 13.035323               | .173948                     | 99.021858               | .624513                     |
| Maryville<br>Morristown   | 13.886330               | .153366                     | 111.454966              | .658649                     |
| Johnson City<br>Elizabethton<br>Kingsport<br>Greeneville<br>Bristol | 10.696903               | .162066                     | 169.773651              | .611201                     |