

**BEFORE THE TENNESSEE REGULATORY AUTHORITY
NASHVILLE, TENNESSEE**

IN RE:

**PETITION OF ATMOS ENERGY)
CORPORATION FOR APPROVAL OF)
ADJUSTMENT OF ITS RATES AND)
REVISED TARIFF)**

DOCKET NO. 12-_____

**PRE-FILED TESTIMONY OF JOSHUA C. DENSMAN
ON BEHALF OF ATMOS ENERGY CORPORATION**

I. POSITION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Joshua C. Densman. I am Senior Financial Analyst for Atmos Energy Corporation's Kentucky/Mid-States Division (herein referred to as "Atmos Energy" or the "Company"), which includes the Company's regulated gas utility operations in Tennessee. My business address is 810 Crescent Centre Drive, Suite 600, Franklin, Tennessee 37067-6226.

Q. PLEASE BRIEFLY DESCRIBE YOUR CURRENT RESPONSIBILITIES, AND PROFESSIONAL AND EDUCATIONAL BACKGROUND.

A. I have a Bachelor of Business Administration from Baylor University. I have worked for Atmos Energy since 2005. In 2008, I assumed my current position, Senior Financial Analyst of Atmos Energy's Kentucky/Mid-States Division. My job responsibilities include the review and analysis of accounting, billing, and engineering data for accuracy and appropriate information in the States of Tennessee, Virginia, and Georgia.

1 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE TENNESSEE**
2 **REGULATORY AUTHORITY (THE “AUTHORITY”)?**

3 A. No. I have, however, been responsible for providing support in filings before the
4 regulatory agencies in the Kentucky/Mid-States Division. Included in those
5 responsibilities has been the development of the attrition year billing
6 determinants, proposed rate design and certain responses to discovery by
7 Commission Staffs and other intervening parties.

8
9 **II. PURPOSE OF TESTIMONY**

10 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
11 **PROCEEDING?**

12 A. The purpose of my testimony is to support the Company’s attrition period
13 revenues and billing determinants, as well as the rate design and proposed rates in
14 this filing.

15 **Q. ARE YOU SPONSORING ANY SCHEDULES?**

16 A. Yes. I am sponsoring the following schedules:
17 Schedule JCD-1 Test Period Margin
18 Schedule JCD-2 Attrition Period Margin
19 Schedule JCD-3 Present vs. Proposed Rates
20 Schedule JCD-4 Rate Design
21 Schedule JCD-5 Proposed Tariff (red-lined version)

1 **III. ATTRITION PERIOD REVENUES AND BILLING DETERMINANTS**

2
3 **Q. PLEASE DESCRIBE HOW THE COMPANY HAS ARRIVED AT THE**
4 **ATTRITION PERIOD REVENUES IN THIS PROCEEDING.**

5 A. To determine the attrition period revenues in this case, billing determinants
6 (customer base charge counts and volumes) from the historical test period 12
7 months ended March 31, 2012 were priced-out at the Company's currently
8 effective tariff rates as shown on schedule JCD-1. To accomplish this, the test
9 period volumes were weather normalized and then adjusted to account for
10 projected residential/commercial customer growth and usage changes during the
11 attrition period. Adjustments were also made to reflect the projected number of
12 customers that will take advantage of the senior citizen – low income discount
13 and anticipated changes to the gas usage of certain large customers during the
14 attrition period. The resulting attrition period revenue (less gas cost) is
15 \$52,917,265.

16 **Q. PLEASE DESCRIBE THE STEPS TAKEN TO NORMALIZE THE TEST**
17 **PERIOD VOLUMES FOR THE EFFECTS OF WEATHER.**

18 A. The adjustment to normalize the test period volumes for the effects of weather is
19 based on a weather dependency factor. To calculate this factor, a linear
20 regression of the actual usage and actual heating degree days was utilized for the
21 36 months ended March 31, 2012. The base load amount was also calculated as a
22 part of the regression. A weather dependency factor was calculated for the
23 geographic areas using the NOAA 30 year normal (1981-2010).

1 **Q. WHAT WEATHER STATIONS ARE UTILIZED TO NORMALIZE THE**
2 **TEST PERIOD VOLUMES?**

3 A. The actual and normal heating degree days for the Paducah, KY NOAA station
4 was used to weather normalize the Company's residential and commercial sales
5 volume in the Company's Union City service area. The actual and normal heating
6 degree days for the Nashville, TN NOAA station was used to normalize
7 residential and commercial sales volumes in the Company's service areas of
8 Columbia, Shelbyville, Murfreesboro and Franklin. The actual and normal
9 heating degree days for the Knoxville, TN NOAA station was used to weather
10 normalize the Company's residential and commercial sales volumes in the
11 Maryville and Morristown service area. The Bristol, TN NOAA station was used
12 to weather normalize the Company's residential and commercial sales volumes in
13 Johnson City, Greeneville, Elizabethton and Bristol.

14 The normal daily heating degree days used in the calculation and billing of the
15 weather normalization adjustment is the 30 year normal for the NOAA weather
16 stations referenced previously.

17 **Q. CAN YOU PLEASE DESCRIBE THE CALCULATION OF THE**
18 **WEATHER NORMALIZATION ADJUSTMENT?**

19 A. Yes. The calculation of this adjustment (shown on workpaper 1-8) divides the
20 historical period volumes by the number of bills rendered for each month to arrive
21 at the Sales per Bill. The difference between actual and normal heating degree
22 days is calculated and multiplied by the weather dependency factor to arrive at the
23 weather adjustment per bill. The sales per bill and the weather adjustment per bill

1 are summed and then multiplied by the number of bills rendered for the month to
2 arrive at normalized test period sales volumes. The adjustment is the difference in
3 normalized test period sales volumes for the historic period and actual volumes
4 for the historic period. This weather adjustment to volumes is shown in schedule
5 JCD-1 in column (g). These volume adjustments are then integrated into schedule
6 JCD-2 which is the Attrition Period Margin at Present Rates.

7 **Q. IS THE COMPANY PROPOSING ANY CHANGES TO THE WNA**
8 **CALCULATION IN THIS PROCEEDING?**

9 A. Yes. Atmos Energy did not update its heat use/base use factors and the normal
10 heating degree days in Docket No.08-00197. Atmos Energy is proposing to
11 update the residential and commercial factors in this proceeding utilizing the
12 linear regression methodology described above. The Company is also requesting
13 to add the month of October to its WNA calculation. Although October is
14 considered a shoulder month, deviation from normal heating degree days can be
15 significant. In fact, there is a combined 897 normal heating degree days for
16 October compared to 984 normal heating degree days in April for the Company's
17 four Tennessee weather stations. Atmos Energy's WNA calculation already
18 includes the shoulder month of April.

19 **Q. PLEASE DESCRIBE THE ADJUSTMENTS MADE TO THE TEST YEAR**
20 **VOLUMES AND BASE CHARGE COUNTS.**

21 A. The Company adjusted the test period base charge counts by 218 bills to reflect
22 the anticipated attrition period number of customers receiving the senior citizen –
23 low-income discount. The 218 bill projection was a result of averaging the

1 number of customers who switched to the senior citizen low-income discount in
2 the Company's 2010, 2011, and 2012 fiscal years. The 2012 fiscal year figure
3 was calculated by annualizing the number of customers who have switched
4 between October 1st and April 30th since the fiscal year is not complete. Volumes
5 and base charge counts were also adjusted for customers who changed rate classes
6 during the test period (JCD-2, columns (h) and (i)). The Company applied
7 adjustments for customer growth and customer usage, shown on schedule JCD-2,
8 columns (k) and (l). The customer growth adjustments reflect the projected net
9 number of residential and small commercial customers that will be added to the
10 system during the attrition period. This adjustment is based on the three-year
11 period, ending March, 31, 2012. The customer change is then multiplied by the
12 annualized normal usage per customer to arrive at the adjustment to volumes.
13 The customer usage adjustment reflects the steady decline in annual usage per
14 residential and small commercial customer experienced by the Company and the
15 industry as a whole. The Company utilized seven years of data to determine the
16 adjustment for customer usage in this proceeding. Further adjustments were made
17 to the volumes of some of the Company's large customers (workpaper 1-2).
18 These adjustments, made by rate schedule, are based on whether the customer
19 reduced or increased consumption or left the system during the historical period.
20 Adjustments were also made based on information provided by these customers
21 concerning their projected usage during the attrition period.

22 23 **IV. PROPOSED RATES AND RATE DESIGN**

1 **Q. WHY HAS THE COMPANY PROPOSED AN INCREASE IN BASE**
2 **RATES?**

3 A. The Company has a revenue deficiency of \$10,800,897 at current rates. Current
4 rates are therefore insufficient to permit the Company the opportunity to earn a
5 reasonable return on its invested capital over and above its reasonable and
6 necessary operating expenses. The changes to volumetric rates proposed by the
7 Company in this filing, coupled with the increased customer charges proposed by
8 the Company, will allow the Company an opportunity to earn a reasonable return.

9 **Q. WHAT IS THE COMPANY'S CURRENT RATE DESIGN?**

10 A. The Company's current rate design apportions the Company's revenue
11 requirement between a monthly fixed customer charge and a volumetric rate for
12 each customer class. Except for the proposed increases to both the monthly
13 customer charge and volumetric rate component, the Company is proposing
14 essentially the same rate design.

15 **Q. HOW DOES THE COMPANY PROPOSE TO SPREAD THE**
16 **REQUESTED RATE INCREASE TO THE VARIOUS CUSTOMER**
17 **CLASSES?**

18 A. The Company is proposing to allocate the requested increase to the various rate
19 schedules proportionate to the margin shown on schedule JCD-4.

20 **Q. PLEASE EXPLAIN THE COMPANY'S PROPOSAL TO INCREASE THE**
21 **CUSTOMER CHARGES OF RATE SCHEDULES 210 AND 220.**

22 A. The Company proposes to increase the residential Rate Schedule 210 customer
23 charge to \$13.85 during the summer months (May through September) and

1 \$16.85 during the winter months (October through April), and the small
2 commercial/industrial Rate Schedule 220 monthly customer charge to \$35.00.
3 The Company's proposal recovers any remaining share of the requested increase
4 through the volumetric rate per Ccf. A detailed comparison of the Company's
5 present vs. proposed rates in this case can be found on schedule JCD-3. A strike-
6 through copy of the Company's proposed revisions to its related tariff pages is
7 attached hereto as schedule JCD-5.

8 **Q. WHY SHOULD THIS AUTHORITY AUTHORIZE THE COMPANY TO**
9 **INCREASE ITS CUSTOMER CHARGES?**

10 A. The vast majority of non-gas costs borne by a natural gas utility, and
11 correspondingly its revenue requirements, are fixed and are essentially unaffected
12 by the volumes sold or transported. The proposed customer charges strike a
13 reasonable balance between the amount of the increase collected through the base
14 charge versus the volumetric component of a customer's bill. The Company
15 currently collects approximately 46% of its base rate margin through the customer
16 charge, and the proposed change to the customer charges would not increase this
17 percentage materially. The requested increases to the customer charges are a
18 small but important incremental step toward greater matching of the Company's
19 fixed costs to fixed revenue sources such as the customer charge.

20 Another benefit of collecting a greater percentage of margin through the
21 customer charge is that it allows customers to spread a portion of their costs
22 throughout the year, thus taking some pressure off of higher winter bills. While
23 the Company's current WNA mechanism helps lower the customer's overall bill

1 in colder-than-normal winter months, it does not have the ability to more evenly
2 spread the cost that customers will pay over twelve months.

3 **Q. WILL THE CURRENT SENIOR CITIZEN EXEMPTION FROM PAYING**
4 **THE MONTHLY CUSTOMER CHARGE REMAIN IN EFFECT?**

5 A. Yes, residential customers 65 or older meeting the threshold for low-income
6 eligibility requirements will continue to be exempt from the proposed monthly
7 customer charge.

8 **Q. DOES THE COMPANY HAVE ANY CUSTOMERS SERVED UNDER**
9 **SPECIAL CONTRACTS OR NON-TARIFF RATES?**

10 A. Yes. Special contracts and “other revenue”, which includes forfeited discounts
11 and service fees, are not part of the attrition period revenues over which the
12 Company is proposing to spread any granted increase. The special contract
13 revenue is not based on any particular tariff rate, and thus is not included when
14 determining how to allocate increases in revenue.

15 **Q. WHAT IS THE IMPACT TO THE VARIOUS CUSTOMER CLASSES**
16 **SHOULD THE COMPANY BE GRANTED ITS REQUESTED**
17 **INCREASE?**

18 A. The impact is shown on schedule JCD-3.

19 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

20 A. Yes.

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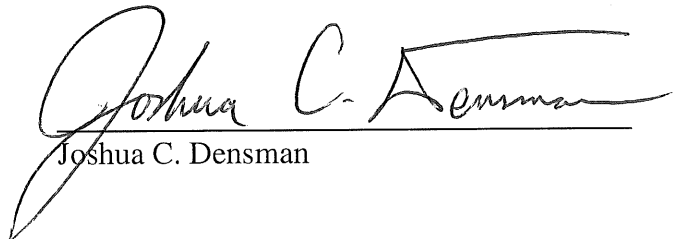
DOCKET NO.

VERIFICATION

STATE OF TENNESSEE)

COUNTY OF WILLIAMSON)

I, Joshua C. Densman, being first duly sworn, state that I am the Sr. Financial Analyst for the Kentucky/Mid-States Division for Atmos Energy Corporation, that I am authorized to testify on behalf of Atmos Energy Corporation in the above referenced docket, that the Testimony of Joshua C. Densman in Support of Atmos Energy Corporation's Petition and the Exhibits thereto pre-filed in this docket on the date of filing of this Petition are true and correct to the best of my knowledge, information and belief.



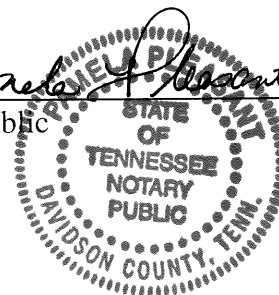
Joshua C. Densman

Sworn and subscribed before me this 18th day of June, 2012.



Notary Public

My Commission Expires: May 3, 2016



Line No. Description	12 Mths Ended Mar 12		Rates effective Mar 12		12 mths Mar12	Weather	12 mths Mar12	12 mths Mar12	12 mths Mar12
	Base Count	Volumes Ccf	Monthly Customer chg	Commodity Charge/Ccf	Margin at Mar12 rates	Adjustment Volumes Ccf	WNA Adjusted Volumes Ccf	Weather adj Margin at Mar12 rates	WNA \$ Adj at Mar12 rates
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1 RESIDENTIAL									
2 210 RGS SUMMER	563,336	7,916,707	\$10.50	\$0.1347	6,981,408		7,916,707	6,981,408	\$0
3 210 RGS WINTER (weather sensitive)	802,882	54,575,269	13.50	\$0.1347	18,190,196	10,821,592	65,396,861	19,647,864	\$1,457,668
4 210 RGS SR CIT SUMMER	793	6,785	0.00	\$0.1347	914		6,785	914	
5 210 RGS SR CIT WINTER (weather sensitive)	1,103	70,794	0.00	\$0.1347	9,536		70,794	9,536	
6 211 HVAC	12	4,014	10.50	\$0.0711	411		4,014	411	
7 Total Residential	1,368,126	62,573,569			25,182,465	10,821,592	73,395,161	26,640,134	1,457,668
8 COMMERCIAL									
10 211 HVAC	17	1,902	10.50	0.0711	314		1,902	314	
11 220 COM/IND GS (weather sensitive)	186,214	42,633,711	30.00	0.2073	14,424,388	5,691,337	48,325,048	15,604,202	\$1,179,814
12 230 LRG COM/IND GS (weather sensitive)	50	488,502	200.00	0.1831	99,445	65,212	553,714	111,385	\$11,940
13 240 DEMAND/COMM GS			310.00		0		0	0	
14 Block 1 Volumes				0.1015	0		0	0	
15 Block 2 Volumes				0.0672	0		0	0	
16 Block 3 Volumes				0.0311	0		0	0	
17 Demand Volumes				1.6283	0		0	0	
18 250 OPT GS	24		310.00		7,440		0	7,440	
19 Block 1 Volumes		79,600		0.1015	8,079		79,600	8,079	
20 Block 2 Volumes				0.0672	0		0	0	
21 Block 3 Volumes				0.0311	0		0	0	
22 293 LRG TONN HVAC GS	12		30.00		360		0	360	
23 Block 1 Volumes		177,530		0.1015	18,019		177,530	18,019	
24 Block 2 Volumes		50,237		0.0672	3,376		50,237	3,376	
25 Block 3 Volumes				0.0311	0		0	0	
26 Total Commercial	186,317	43,431,482			14,561,421	5,756,549	49,188,031	15,753,176	1,191,754
27 INDUSTRIAL									
29 220 COM/IND GS	3,947	4,681,240	30.00	0.2073	1,088,831		4,681,240	1,088,831	
30 230 LRG COM/IND GS	117	1,609,709	200.00	0.1831	318,138		1,609,709	318,138	
31 240 DEMAND/COMM GS	12		310.00		3,720		0	3,720	
32 Block 1 Volumes		240,000		0.1015	24,360		240,000	24,360	
33 Block 2 Volumes		211,150		0.0672	14,189		211,150	14,189	
34 Block 3 Volumes				0.0311	0		0	0	
35 Demand Volumes		24,600		1.6283	40,056		24,600	40,056	
36 250 OPT GS	289		310.00		89,590		0	89,590	
37 Block 1 Volumes		2,850,788		0.1015	289,355		2,850,788	289,355	
38 Block 2 Volumes		2,584,507		0.0672	173,679		2,584,507	173,679	
39 Block 3 Volumes				0.0311	0		0	0	
40 280 - ECONOMIC DEV GS (250 OPT)			310.00		0		0	0	
41 Block 1 Volumes				0.1015	0		0	0	
42 Block 2 Volumes				0.0672	0		0	0	
43 Block 3 Volumes				0.0311	0		0	0	
44 292 CNG/Prime Mover			30.00		0		0	0	
45 Block 1 Volumes		19,756		0.1015	2,005		19,756	2,005	
46 Block 2 Volumes				0.0672	0		0	0	
47 Block 3 Volumes				0.0311	0		0	0	
48 292 COGEN/CNG			30.00		0		0	0	
49 Block 1 Volumes				0.1015	0		0	0	
50 Block 2 Volumes				0.0672	0		0	0	
51 Block 3 Volumes				0.0311	0		0	0	
52 Total Industrial	4,365	12,197,149			2,043,923	0	12,197,149	2,043,923	
53 PUBLIC AUTHORITY									
55 211 HVAC			10.50	0.0711	0		0	0	
56 221 EXPERIMENTAL SGS	72	673,517	30.00	0.0996	69,242		673,517	69,242	
57 225 PAG SR CIT SUMMER			0.00	0.1347	0		0	0	
58 225 PAG SR CIT WINTER (weather sensitive)			0.00	0.1347	0		0	0	
59 225 PAG GS - SUMMER	2,395	84,603	10.50	0.1347	36,544		84,603	36,544	
60 225 PAG GS - WINTER (weather sensitive)	3,379	329,037	13.50	0.1347	89,936	71,536	400,573	99,574	9,636
61 Total Public Authority	5,846	1,087,158			195,724	71,536	1,158,693	205,360	9,636

Line No. Description	12 Mths Ended Mar 12		Rates effective Mar 12		12 mths Mar12	Weather	12 mths Mar12	12 mths Mar12	12 mths Mar12
	Base Count	Volumes Ccf	Monthly Customer chg	Commodity Charge/Ccf	Margin at Mar12 rates	Adjustment Volumes Ccf	WNA Adjusted Volumes Ccf	Weather adj Margin at Mar12 rates	WNA \$ Adj at Mar12 rates
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
62									
63 TRANSPORTATION									
64 260 - TRANSP (220 SML COMINDG)	52	425,040	310.00	0.2073	104,231		425,040	104,231	
65 260 - TRANSP (230 LRG COMINDG)	442	9,731,360	310.00	0.1831	1,918,836		9,731,360	1,918,836	
66 260 - TRANSP (240 DEMAND/COMM GS)	15		310.00		4,650		0	4,650	
67 Block 1 Volumes		300,000		0.1015	30,450		300,000	30,450	
68 Block 2 Volumes		725,830		0.0672	48,776		725,830	48,776	
69 Block 3 Volumes				0.0311	0		0	0	
70 Demand Volumes		63,720		1.6283	103,755		63,720	103,755	
71 260 - TRANSP (280/240 ECON DEV - DEMAND/COMM)	9		310.00		2,790		0	2,790	
72 Block 1 Volumes		180,000		0.1015	18,270		180,000	18,270	
73 Block 2 Volumes		342,490		0.0672	23,015		342,490	23,015	
74 Block 3 Volumes		38,020		0.0504	1,916		38,020	1,916	
75 Demand Volumes		31,680		1.6283	51,585		31,680	51,585	
76 260 - TRANSP (250 OPT GS)	633		310.00		196,230		0	196,230	
77 Block 1 Volumes		11,536,390		0.1015	1,170,944		11,536,390	1,170,944	
78 Block 2 Volumes		35,852,910		0.0672	2,409,316		35,852,910	2,409,316	
79 Block 3 Volumes				0.0311	0		0	0	
80 260 - TRANSP (280/250 ECON DEV - OPT GS)			310.00		0		0	0	
81 Block 1 Volumes				0.1015	0		0	0	
82 Block 2 Volumes				0.0672	0		0	0	
83 Block 3 Volumes				0.0311	0		0	0	
84									
85 SPECIAL CONTRACTS					776,105			776,105	
86									
87 Total Transportation	1,151	59,132,060			6,860,867	0	59,132,060	6,860,867	
88									
89 TOTALS	1,565,805	178,421,417			\$48,844,401	16,649,677	195,071,094	\$51,503,460	\$2,659,059
90									
91 4870 - Forfeited Discount					791,849			\$791,849	
92 4880 - Miscellaneous Service charges					466,058			466,058	
93 TOTAL MARGIN REVENUES					\$50,102,308			\$52,761,367	

RESIDENTIAL GAS SERVICE

Schedule 210: All Service AreasAvailability

Residential service is available within the Company's service area to single private residences, including the separate private units of apartment houses and other multiple dwellings, actually used for residential purposes, which are separately metered.

Character of Service

Natural gas, with a heating value of approximately 1,000 Btu per cubic foot, supplied through a single delivery point and a single meter, at the delivery pressure of the distribution system in the area.

Customer Charge

A monthly customer charge of ~~\$13.50~~ \$16.85 for the months of October through April is payable regardless of the usage of gas.

A customer charge of ~~\$10.50~~ \$13.85 for the months of May through September is payable regardless of the usage of gas.

Monthly

All consumption, per Ccf ~~\$.1347~~ \$.1492

Minimum Bill

The minimum net monthly bill shall be the customer charge per month as described above.

Payment

Each monthly bill for service is due and payable on the date it is issued. A charge of five percent (5%) may be added to the amount of any bill remaining unpaid at the close of the first business day after fifteen (15) days following such date of issue.

Gas Lights

For all gas light services, the charge for such services shall be based on actual usage through a metered source at this tariff rate. For all unmetered gas light services prior to August 17, 1990 the customer will be billed for twenty (20) Ccf per standard residential gas light. For all unmetered gas light service after August 17, 1990 the Company may estimate and determine the appropriate consumption of the light and charge the applicable rate under this rate schedule.

RESIDENTIAL AND SMALL COMMERCIAL/INDUSTRIAL
HEATING AND COOLING SERVICESchedule 211: All Service AreasAvailability

This service is available within the Company service area to single private residences, including the separate private units of apartment houses and other multiple dwellings, actually used for residential purposes, which are separately metered and which utilize natural gas for heating and cooling the conditioned space. This schedule is also available within the Company's service area to commercial/industrial customers using less than 5,000 Ccf per year and which utilize natural gas for heating and cooling the conditioned space. Cooling equipment must have a COP greater than 0.7. Any additional gas measured through this single meter will be billed at this rate.

This service is intended to assist in the development of natural gas heating and cooling technologies. This rate is designed to significantly increase energy savings which will improve the economics of the technology. This service will cease when either of the following criteria has been met.

- 1) One hundred customers have qualified for this service
- 2) The service expires for new customers ten years after November 15, 1995.

Customers that have qualified for this service prior to the expiration date will continue to receive service under this rate schedule as long as natural gas is utilized for both heating and cooling.

Character of Service

Natural gas, with a heating value of approximately 1,000 Btu per cubic foot, supplied through a single delivery point and a single meter, at the delivery pressure of the distribution system in the area.

Customer Charge

A monthly customer charge of ~~\$10.50~~ \$13.85 is payable regardless of the usage of gas.

Monthly

All consumption, per Ccf \$.0711

Minimum Bill

The minimum net monthly bill shall be the customer charge per month as described above.

Payment

Each monthly bill for service is due and payable on the date it is issued. A charge of five percent (5%) may be added to the amount of any bill remaining unpaid at the close of the first business day after fifteen (15) days following such date of issue.

COMMERCIAL/INDUSTRIAL GAS SERVICE

Schedule 220: All Service AreasAvailability

This schedule is available within the Company's service area to commercial/industrial customers using less than 135,000 Ccf per year for any purpose at the option of the Company, to the extent gas is available. This schedule is not available to residences, apartment or federal housing projects.

Character of Service

Natural gas, with a heating value of approximately 1,000 Btu per cubic foot, supplied through a single delivery point and a single meter, at the delivery pressure of the distribution system in the area, or such higher delivery pressure as agreed upon by customer and Company.

Customer Charge

A monthly customer charge of ~~\$30.00~~ \$35.00 is payable regardless of the usage of gas.

Monthly Rate

All Consumption, per Ccf ~~\$.2073~~ \$.2561

Minimum Bill

The minimum net monthly bill shall be the customer charge per meter as described above.

Payment

Each monthly bill for service is due and payable on the date it is issued. A charge of five percent (5%) may be added to the amount of any bill remaining unpaid at the close of the first business day after fifteen (15) days following such date of issue.

Gas Lights

For all metered gas light services under this tariff, the charge for such service shall be based on actual usage through a metered source at this tariff rate. It shall be within the Company's discretion whether a gas light should be metered, however if the gas light is unmetered, the Company may estimate and determine the appropriate consumption of the light and charge the applicable rate under this rate schedule.

EXPERIMENTAL SCHOOL GAS SERVICE

Schedule 221: All Service AreasAvailability

This service is available to existing or new state, county, city, and private educational institutions or universities eligible for accreditation by the Southern Association of Secondary Schools and Colleges utilizing natural gas through a single meter for primary heating and cooling of the conditioned space. Any additional gas measured through this single meter will be billed at this rate. Gas cooling equipment must have a coefficient of performance (COP) greater than 0.7.

This service is intended to assist in the development of the natural gas cooling market. This rate is designed to significantly increase energy savings which improves the economics of natural gas cooling. This service is experimental and will cease when any one of the following criteria has been met.

1. Ten (10) schools have qualified for this service.
2. 250,000 Mcf per year of estimated gas consumption has qualified for this service.
3. The experimental service expires on October 1, 2002.

Schools that have qualified for this service prior to October 1, 2002 will continue to receive service under this rate schedule as long as natural gas is utilized for both heating and cooling.

Character of Service

Natural gas, with a heating value of approximately 1,000 Btu per cubic foot, supplied through a single delivery point and a single meter, at the delivery pressure of the distribution system in the area, or such higher delivery pressure as agreed upon by customer and Company.

Customer Charge

A monthly customer charge of ~~\$30.00~~ \$35.00 is payable regardless of the usage of gas.

Monthly Rate

All Consumption, per Ccf ~~\$.0996~~ \$.1209

Minimum Bill

The minimum net monthly bill shall be the customer charge per meter as described above.

PUBLIC HOUSING AUTHORITY GAS SERVICE

Schedule 225: All Service AreasAvailability

This service is available within the Company's service area to any customer in a housing project using gas primarily for domestic purposes and under the ownership and control of a public housing authority or other governmental agency, which are master metered.

Character of Service

Natural gas, with a heating value of approximately 1,000 Btu per cubic foot, supplied through a single delivery point and a single meter, at the delivery pressure of the distribution system in the area.

Customer Charge

A monthly customer charge of ~~\$13.50~~ \$16.85 for the months of October through April is payable regardless of the usage of gas.

A customer charge of ~~\$10.50~~ \$13.85 for the months of May through September is payable regardless of the usage of gas.

Minimum Bill

The minimum net monthly bill shall be the customer charge as described above.

Monthly Rate

All consumption, per Ccf ~~\$.1347~~ \$.1492

Payment

Each monthly bill for service is due and payable on the date it is issued. A charge of five percent (5%) may be added to the amount of any bill remaining unpaid at the close of the first business day after fifteen (15) days following such date of issue.

LARGE COMMERCIAL/INDUSTRIAL GAS SERVICE

Schedule 230: All Service AreasAvailability

This service is available within the Company's service area to any commercial/industrial customers using more than 135,000 Ccf per year for any purpose at the option of the Company, to the extent gas is available.

Character of Service

Natural gas, with a heating value of approximately 1,000 Btu per cubic foot, supplied through a single delivery point and a single meter, at the delivery pressure of the distribution system in the area, or at such higher delivery pressure as agreed upon by Customer and Company. Service under this rate schedule may be terminated by either party following twelve (12) months notice to the other party.

Customer Charge

A monthly customer charge of ~~\$200.00~~ \$375.00 is payable regardless of the usage of gas.

Monthly Rate

All Consumption, per Ccf ~~\$1.831~~ \$.2180

Minimum Bill

The minimum net monthly bill shall be the customer charge per meter as described above.

Payment

Each monthly bill for service is due and payable on the date it is issued. A charge of five percent (5%) may be added to the amount of any bill remaining unpaid at the close of the first business day after fifteen (15) days following such date of issue.

Gas Lights

For all metered gas light services under this tariff, the charge for such service shall be based on actual usage through a metered source at this tariff rate. It shall be within the Company's discretion whether a gas light should be metered, however if the gas light is unmetered, the Company may estimate and determine the appropriate consumption of the light and charge the applicable rate under this rate schedule.

DEMAND/COMMODITY GAS SERVICE

Schedule 240: All Service AreasAvailability

This service is available within the Company's service area to any commercial/industrial customers using at least 270,000 Ccf per year for any purpose at the option of the Company, to the extent gas is available.

Character of Service

Natural gas, with a heating value of approximately 1,000 Btu per cubic foot, supplied through a single delivery point and a single meter, at the delivery pressure of the distribution system in the area, or at such higher delivery pressure as agreed upon by Customer and Company. Service under this rate schedule may be terminated by either party following twelve (12) months notice to the other party.

Customer Charge

A monthly Customer Charge of ~~\$310.00~~-\$425.00 is payable regardless of the usage of gas.

Monthly RateDemand Charge

Per Unit of Billing Demand \$1.6283 per Ccf

Commodity Charge

First	20,000	Ccf Per Month	\$.1015 \$.1220
Next	480,000	Ccf Per Month	\$.0672 \$.0808
Over	500,000	Ccf Per Month	\$.0311 \$.0374

Minimum Bill

The minimum net monthly bill shall be the Customer Charge per meter plus the Monthly Demand Charge as described above.

Payment

Each monthly bill for service is due and payable on the date it is issued. A charge of five percent (5%) may be added to the amount of any bill remaining unpaid at the close of the first business day after fifteen (15) days following such date of issue.

INTERRUPTIBLE GAS SERVICE

Schedule 250: All Service AreasAvailability

To any commercial or industrial customer using 270,000 Ccf or more per year, or 1,000 Ccf per day during off-peak periods. The Company recommends that the Customer has and maintains adequate standby facilities and an alternate fuel supply in order that gas deliveries hereunder may be interrupted at any time.

Customers that will utilize natural gas during off-peak periods only do not need to meet the volumetric annual requirement (i.e. 270,000 ccf or more per year) for eligibility under this schedule. Examples of customers utilizing natural gas during off-peak periods only would include, but is not limited to the following: asphalt plants, electric generating facilities, grain drying facilities, and farm irrigation systems. The Company recommends an adequate standby facility and alternate fuel supply for off-peak customers served under this schedule.

Deliveries to such customers shall be subject to curtailment at any time. Deliveries to such customers shall be subject to curtailment in whole or in part upon one-half (1/2) hour's notice.

Character of Service

Natural gas, with a heating value of approximately 1,000 Btu per cubic foot, supplied through a single delivery point and a single meter, at the delivery pressure of the distribution system in the area, or such higher delivery pressure as agreed upon by customer and Company.

Customer Charge

A monthly customer charge of ~~\$310.00~~ \$425.00 is payable regardless of the usage of gas.

Monthly Rate

First	20,000	Ccf used per month	\$.1015 \$.1220
Next	480,000	Ccf used per month	\$.0672 \$.0808
Over	500,000	Ccf used per month	\$.0311 \$.0374

Minimum Bill

The minimum net monthly bill shall be \$310.00

Payment

Each monthly bill for service is due and payable on the date it is issued. A charge of five percent (5%) may be added to the amount of any bill remaining unpaid at the close of the first business day after fifteen (15) days following such date of issue.

TRANSPORTATION SERVICE (Continued)

Schedule 260: All Service Areas

- (vi) A percentage adjustment for lost and unaccounted for gas shall be made to the volumes of gas received by the Company from the Connecting Pipeline Company for the Customer's account, and the volumes of gas deliverable to the Customer under this rate schedule shall be reduced by such percentage. Such percentage shall be equal to the percent that unaccounted-for gas bore to total sendout as recorded by the Company during its most recent 12 months ended June.
- (vii) If the rendition of service to Customer under this rate schedule causes the Company to incur additional charges from the Connecting Pipeline Company, Customer shall reimburse Company for all such charges.
- (viii) All volumes transported under the terms of this rate schedule shall be included in the Purchased Gas Adjustment computations and included in the sales volumes of the Purchased Gas Adjustment computations.
- (ix) The Customers served under this Rate Schedule shall be required to pay for the cost of, installation of, replacement of, and maintenance of measurement data collection and verification equipment, including applicable income taxes. Customers shall also be required to pay the cost of installation, maintenance and any monthly usage charges associated with dedicated telephone, power or other utilities or energy sources required for the operation of the data collection and verification equipment, including applicable income taxes. Customers shall also be required to provide adequate space in new or existing facilities for the installation of the data collection equipment.
- (x) Once a customer elects and has qualified for service under this rate schedule, all services will be provided under the terms and conditions of this rate schedule for a term of no less than 12 months. At any time following the first six months of service under this rate schedule, service may be terminated by either party following at least six months written notice to the other party. After termination of this service, Customer may not re-elect for transportation service for a period of no less than 12 months after termination.

D. RateCustomer Charge

A monthly customer charge of ~~\$310.00~~ \$425.00 per meter is payable regardless of the usage of gas.

Monthly Demand Charge

The Customers eligible to receive service under companion Rate Schedule 240 shall be billed the applicable Monthly Demand Charge.

Monthly Rate

The Customer shall be billed for the quantity of gas delivered under this rate schedule at the monthly rate of the companion rate schedule, plus any applicable taxes or fees.

COGENERATION, COMPRESSED NATURAL GAS, PRIME MOVERS, FUEL CELL SERVICE

Schedule 292: All Service AreasPurpose

The purpose of providing service under this schedule is to increase utilization of system supplies and system capacity.

Applicability

This schedule is available to the extent gas supply and delivery capacity is available to commercial and industrial customers, existing or new, for use as a single prime fuel source to generate electrical and thermal energy in order to optimize efficiency. This schedule is also available for compressed natural gas for automobile and truck fleets and fuel cell service.

Eligibility

Eligible customers shall include those who are currently connected to the Company's gas main or who will become newly connected. In either case, service will be provided, at the Company's option, through a separate meter.

Character of Service

Natural gas with a heating value of approximately 100,000 Btu per hundred cubic feet, supplied through a single delivery point meter, at the standard equipment utilization pressure, or at such higher delivery pressure as approved by Company.

RateCustomer Charge

A monthly charge of ~~\$30.00~~ \$35.00 for each customer regardless of the usage of gas.

Customer charge for adjacent connected load will not be duplicated, otherwise the facilities charge will be at the customer's regular schedule charge.

Monthly Charge

First	20,000	Ccf used per month	\$.1015 \$.1220
Next	480,000	Ccf used per month	\$.0672 \$.0808
Over	500,000	Ccf used per month	\$.0311 \$.0374

LARGE TONNAGE AIR CONDITIONING GAS SERVICE

Schedule 293: All Service AreasPurpose

The purpose of providing service under this schedule is to increase utilization of system supplies and system capacity.

Applicability

This schedule is available to the extent gas supply and delivery capacity is available to commercial and industrial customers whose requirements may include high load factor systems that provide chilled water, space conditioning, processing, and/or humidity control. These conditions may be accomplished by the utilization of absorption, gas engine driven or desiccant systems.

Eligibility

Eligible customers shall include those who are currently connected to the Company's gas main or who will become newly connected. In either case, service will be provided, at the Company's option, through a separate meter.

Character of Service

Natural gas with a heating value of approximately 100,000 Btu per hundred cubic feet, supplied through a single delivery point and a single meter, at the standard equipment utilization pressure or at such higher delivery pressure as approved by Company.

RateCustomer Charge

A monthly charge of ~~\$30.00~~ \$35.00 for each customer is payable regardless of the usage of gas.

Customer charge for adjacent connected load will not be duplicated; otherwise the facilities charge will be at the customers regular schedule charge.

Monthly Charge

First	20,000	Ccf used per month	\$.1015 \$.1220
Next	480,000	Ccf used per month	\$.0672 \$.0808
Over	500,000	Ccf used per month	\$.0311 \$.0374

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER

Provisions 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 October ~~November~~ 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</u>	
	<u>Base use Ccf</u>	<u>Heat use Ccf/HDD</u>	<u>Base use Ccf</u>	<u>Heat use Ccf/HDD</u>
Union City	10.43 6.73	.124185 .139813	112.80 46.93	.416839 .463823
Columbia Shelbyville Franklin Murfreesboro	11.34 8.51	.147091 .157919	112.93 96.56	.473009 .508846
Maryville Morristown	11.39 7.99	.122329 .129055	195.74 81.52	.392082 .596439
Johnson City Elizabethton Kingsport Greeneville Bristol	11.51 6.62	.112572 .126045	125.95 89.96	.489418 .552491

