

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

**IN RE:**

<b>PETITION OF ATMOS ENERGY</b>	)	
<b>CORPORATION FOR APPROVAL OF</b>	)	
<b>ADJUSTMENT OF ITS RATES AND</b>	)	
<b>REFUSED TARIFF</b>	)	<b>DOCKET NO. 2006-00464</b>

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**JAMES C. CAGLE**

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**I. INTRODUCTION OF WITNESS**

**Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.**

**A.** My name is James C. Cagle. I am the Manager of Rates and Revenue Requirements for Atmos Energy Corporation ("Atmos" or the "Company"). My business address is 5430 LBJ Freeway, Suite 700, Dallas, Texas 75240.

**II. SUMMARY OF TESTIMONY**

**Q. PLEASE BRIEFLY SUMMARIZE THE TESTIMONY YOU INTEND TO GIVE IN THIS MATTER.**

**A.** I am sponsoring the following analyses and calculations:

- common cost allocations made for ratemaking purposes;
- the adjustment to accumulated deferred income tax;
- the weather normalized margin projection for the attrition period; and
- the update to the Company's Weather Normalization Adjustment (WNA) base load and heat sensitive factors.

**Q. ARE YOU SPONSORING ANY SCHEDULES IN CONNECTION WITH YOUR TESTIMONY?**

1 A. Attached to my testimony are the following Exhibits:

- 2       ▪ Exhibit JCC-1 (listing the states and dockets in which I have testified );
- 3       ▪ Exhibit JCC-2 (showing the Company's overall corporate structure);
- 4       ▪ Exhibit JCC-3 (the composite factors used to allocate common costs for purposes
- 5       of this rate proceeding);
- 6       ▪ Exhibit JCC-4 (schedules showing the weather normalized margin for the
- 7       attrition period); and
- 8       ▪ Exhibit JCC-5 (update to the base load and heat sensitive factors for the
- 9       Company's Weather Normalization Adjustment).

10  
11 **III. WITNESS QUALIFICATIONS**

12 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**  
13 **PROFESSIONAL EXPERIENCE.**

14 A. I received a Bachelor of Accountancy degree from the University of Oklahoma in 1987. I  
15 am a Certified Public Accountant licensed in the state of Texas. I have been employed by  
16 Atmos since 1989. I was initially employed in Atmos' financial reporting department.  
17 For the past thirteen years, except for the period from September 1997 through February  
18 1998 when I was employed by GTE in its Costing department, I have worked in Atmos'  
19 rates department.

20 **Q. PLEASE DESCRIBE YOUR CURRENT RESPONSIBILITIES AND**  
21 **QUALIFICATIONS.**

22 A. As Manager of Rates and Revenue Requirements, I am primarily responsible for rate  
23 studies of and assisting in the design and implementation of rates for Atmos' regulated  
24 utility operations. I am also responsible for oversight of certain rate related compliance  
25 and reporting requirements prescribed by Atmos' various regulatory commissions. Part  
26 of my responsibilities also include participation in the preparation, updating and  
27 implementation of the Company's Cost Allocation Manual (CAM), which is filed at least  
28 yearly with the Kentucky Public Service Commission ("KPSC") and is further discussed  
29 in the testimony of Company witness Daniel M. Meziere. For a significant portion of the

1 past thirteen years, I have performed rate studies or portions of rate studies for the design  
2 and implementation of rates for a majority of the Atmos' operations.

3 **Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY BEFORE THE**  
4 **TENNESSEE REGULATORY AUTHORITY (TRA)?**

5 A. Yes. I provided testimony before the TRA in Docket No. 05-000258. I have also  
6 provided testimony before several other state commissions. Exhibit JCC-1 attached  
7 hereto lists the various states and dockets in which I have testified.

8  
9 **IV. ATMOS CORPORATE STRUCTURE**

10 **Q. ARE YOU FAMILIAR WITH THE COMPANY'S CORPORATE STRUCTURE?**

11 A. Yes. Atmos Energy Corporation consists of the utility (Atmos Energy Corporation) and  
12 various subsidiaries. The utility is the parent company. The Company conducts its  
13 unregulated operations through its subsidiaries. A chart showing the current corporate  
14 structure is included as Exhibit JCC-2. .

15 **Q IN THE TOP BOX OF EXHIBIT JCC-2 REPRESENTING ATMOS ENERGY**  
16 **CORPORATION, WHAT DO THE VARIOUS DIVISIONS REPRESENT?**

17 A. The various divisions are a part of the Company's management control structure that is  
18 utilized in the Company's shared costs allocation processes. Section 1a of the CAM  
19 describes the corporate structure in detail. There are currently seven such divisions – six  
20 of which are regulated gas local distribution operations and one of which is a regulated  
21 intrastate pipeline operation. We commonly refer to these divisions as "Operating  
22 Divisions" or "Business Units." The Company's Tennessee operation is contained  
23 within the Kentucky/Mid-States Operating Division/Business Unit.<sup>1</sup> Also, Operating  
24 Divisions or Business Units are comprised of rate divisions (described later herein).

25 **Q. DO THESE OPERATING DIVISIONS CONSTITUTE SEPARATE LEGAL**  
26 **ENTITIES?**

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<sup>1</sup> Effective October 1, 2006, the Company's Kentucky and Mid-States Divisions were organizationally consolidated and are now, in effect, one division – the Kentucky/Mid-States Division. "Division" as used in my testimony means the Company's Kentucky/Mid-States Division. "Tennessee" when used in my testimony, unless otherwise indicated, refers exclusively to the Company's operations in Tennessee.

1 A. No. They are merely unincorporated operating divisions within the organizational  
2 structure that the Company has chosen. None of the Operating Divisions are subsidiary  
3 entities that have a separate legal existence apart from the Company, they are not  
4 distinct legal entities, and they do not have separate equity or debt. Additionally, the  
5 divisions do not keep separate books and records.  
6  
7  
8

9 **V. COST ALLOCATION PROCESS FOR COMMON COSTS**  
10

11 **Q. WHAT IS COST ALLOCATION WITH REGARD TO COMMON COSTS?**

12 A. Cost allocation is the process of allocating various common costs that are incurred for  
13 the benefit of two or more of the Company's rate divisions and are therefore allocable to  
14 those rate divisions.

15 **Q. WHAT DO YOU MEAN WHEN YOU REFER TO "RATE DIVISION"?**

16 A. "Rate division" denotes the Company's regulatory jurisdictions that are defined by state  
17 boundaries or, where applicable, geographic areas within states and which comprise an  
18 Operating Division. The term rate division also denotes the Company's various Shared  
19 Services, as well as a particular Operating Division's general and regional office rate  
20 divisions, whose costs are common to more than one operating rate division and are  
21 therefore allocable to those operating rate divisions. For example, an Operating  
22 Division may encompass multiple rate divisions, particularly if the operations of the  
23 Business Unit include multiple states. Basically, each rate division represents an  
24 accumulation of accounting data applicable to an area in which rates have been set by a  
25 regulatory authority such as the TRA. The Company refers to this accumulated data as a  
26 rate division.

27 **Q. ARE THERE DIFFERENT TYPES OF RATE DIVISIONS?**

28 A. Yes, there are operating rate divisions and office rate divisions. An operating rate  
29 division represents a regulated operation such as the Company's utility operations in  
30 Tennessee. An office rate division is one that provides common services to operating

1 rate divisions (as more fully explained herein). The costs of the office rate divisions are  
2 allocated to the operating rate divisions in accordance with the methodology described  
3 by the CAM, as will be more fully explained later in my testimony.

4 **Q. HOW MANY OPERATING RATE DIVISIONS COMPRISE THE COMPANY'S**  
5 **KENTUCKY/MID-STATES DIVISION?**

6 A. Currently, there are eleven rate divisions in the Kentucky/Mid-States Operating  
7 Division, of which Tennessee is one.

8 **Q. HOW DOES THE ACCOUNTING SYSTEM ALLOW FOR THE SEPARATE**  
9 **RECORDING AND TRACKING OF COSTS FOR ATMOS ENERGY'S RATE**  
10 **DIVISIONS?**

11 A. Direct costs are charged directly to the operating rate division that has incurred the costs.  
12 For example, if Tennessee hires an outside contractor to perform leak survey services,  
13 then those costs are charged directly, and only, to Tennessee because the work is done  
14 only for Tennessee. Costs for the Shared Services (hereinafter defined), by contrast, are  
15 allocated to the operating rate divisions that receive the benefit of those services.  
16 Detailed transactions are recorded by rate division in the general ledger for all utility  
17 divisions of Atmos Energy.

18 **Q. WHAT OFFICE RATE DIVISIONS PROVIDE SERVICES TO THE**  
19 **COMPANY'S TENNESSEE RATE DIVISION?**

20 A. Tennessee receives allocations of common costs from Shared Services. Shared Services  
21 is comprised of two parts: Shared Services - General Office, and Shared Services -  
22 Customer Support. Tennessee also receives an allocation of common costs from the  
23 Kentucky/Mid-States Division general office.

24 **Q. WHAT ARE THE COMMON COSTS TO WHICH YOU REFER?**

25 A. Common costs include costs related to technical and support services that are provided to  
26 the Company's operating rate divisions by centralized shared services ("Shared Services"  
27 or "SSU"). Shared Services - General Office includes, for example, accounting, human  
28 resources, legal, rates, information technology and numerous others functions. Shared  
29 Services - Customer Support includes customer call center services, billing, collections,

1 and other customer support related functions. The costs for these Shared Services are  
2 allocated to the Company's rate divisions.

3 **Q. ARE THERE ADDITIONAL COMMON COST ALLOCATIONS OTHER THAN**  
4 **SHARED SERVICES?**

5 A. Yes. If an office rate division encompasses more than one jurisdiction, such as the  
6 Company's Kentucky/Mid-States rate division, which provides services to the  
7 Company's utility operations in Georgia, Iowa, Illinois, Missouri, Kentucky, Virginia and  
8 Tennessee, then the costs from that office rate division are allocated to the separate rate  
9 divisions to which it provides services.

10 **Q. DOES THE COMPANY HAVE ANY METHODOLOGY FOR ALLOCATING**  
11 **COMMON COSTS TO A RATE DIVISION?**

12 A. Yes. The rate division designation is incorporated into the Company's account coding  
13 string. As such, costs are accumulated for various operating areas or office rate divisions  
14 within the Company's general ledger. This could represent the Company's operations in a  
15 particular state or a particular area within a state and/or various office rate divisions,  
16 which would appropriately allocate costs to operating rate divisions.

17 **Q. ARE COMMON COST ALLOCATIONS NECESSARY IN THE CONTEXT OF**  
18 **THE COMPANY'S RATE FILINGS?**

19 A. Yes. It is appropriate and necessary to allocate the common costs incurred for the benefit  
20 of ratepayers in multiple regulatory jurisdictions to the various jurisdictions that receive  
21 those services. For example, the Company's Shared Services – General Office provides  
22 the various support services discussed above to its utility operations in the twelve states  
23 in which the Company operates. Some of these shared services are also provided to the  
24 Company's unregulated subsidiaries. Similarly, the Shared Services - Customer Support  
25 provides customer service functions to the Company's utility operations and is the utility  
26 customer's point of contact with the Company for service activations, billing issues,  
27 emergency reporting, etc. Tennessee rate division customers receive the benefits of these  
28 services, and the allocations of these costs are fairly and justly apportioned to the  
29 Tennessee rate division. In addition to Shared Services, the Kentucky/Mid-States  
30 Division headquarters office provides services to Tennessee and, as a result, costs from

1 the Kentucky/Mid-States division headquarters office (the Kentucky/Mid-States Division  
2 general office rate division) are allocated to the Company's Tennessee rate division.

3 **Q. PLEASE DESCRIBE THE COMPANY'S COST ALLOCATION**  
4 **METHODOLOGY.**

5 **A.** The Company allocates certain types of common costs to its operating rate divisions for  
6 management purposes as well as for reporting and ratemaking purposes. Operations and  
7 Maintenance ("O&M") expense, depreciation expense, and taxes, other than income  
8 taxes, expense that represent common costs are allocated on the books of the Company.  
9 Other common costs such as commonly utilized plant in service and other ratebase items  
10 are not allocated on the books of the Company but are allocated for ratemaking purposes.  
11 These costs are allocated based on accepted methodologies which are further outlined  
12 below, in order to fully show the costs of providing utility service in each of the  
13 regulatory jurisdictions within which the Company serves customers.

14 **Q. IN YOUR ANSWER, YOU DIFFERENTIATE BETWEEN COMMON COSTS**  
15 **THAT ARE ALLOCATED ON THE BOOKS OF THE COMPANY AND THOSE**  
16 **THAT ARE ALLOCATED FOR RATEMAKING PURPOSES. CAN YOU**  
17 **EXPLAIN THE DIFFERENCE?**

18 **A.** Yes. Operations and Maintenance (O&M) expense, depreciation expense, and taxes,  
19 other than income taxes, expense related to Shared Services, and the Mid-states division's  
20 headquarters office are allocated on the Company's books and records utilizing the  
21 allocation methodologies described in detail in the CAM referenced above. The Company  
22 allocates these expenses within its books and records as a part of its normal accounting  
23 cycle. The allocation factors used are generally calculated once per year, updated at the  
24 beginning of the Company's fiscal year (October 1), and utilized for the entire year  
25 unless a material event occurs that would significantly change the factors.

26 For those Shared Services costs that are not allocated on the Company's books and  
27 records, either a composite factor for Shared Service – General Office or a customer  
28 factor for Shared Service – Customer Support is used to allocate costs. Some examples of  
29 Shared Services costs for which composite factors or the customer factor, as appropriate,

are used for allocating such expenses for ratemaking purposes would include plant in service and accumulated deferred income taxes, as well as other rate base items.

**Q. HOW ARE COMPOSITE FACTORS DERIVED?**

A. The composite factors are derived based upon a three-factor formula comprised of:

1. The simple average of the relative percentage of gross plant in service for each of the Company's business units to the total gross plant in service for all of Atmos' business units (excluding Shared Services);

2. The ratio of the number of customers in each of the Company's business units to the total number of the Company's customers; and

3. The ratio of direct O&M expense for each of the Company's business units to the total direct operation and maintenance expenses of all Atmos business units (excluding Shared Services).

**Q. HOW IS THE CUSTOMER FACTOR DERIVED?**

A. The Customer Factor is derived based on the average number of customers of the Operating Divisions that receive allocable costs for the services provided.

**Q. WHY IS THE CUSTOMER FACTOR USED TO ALLOCATE SHARED SERVICES – CUSTOMER SUPPORT INSTEAD OF THE COMPOSITE FACTOR?**

A. This office rate division provides services exclusively to the Company's regulated utility customers, and does not perform any function for the Company's subsidiaries or the Atmos Pipeline Texas division. As a result, Shared Services – Customer Support costs are allocated only to the Company's regulated local distribution Operating Divisions/Business Units. The use of the Customer Factor to allocate the costs of this office rate division, instead of the Composite Factors, is reasonable and appropriate because the need for, and level of services required are primarily driven by the number of customers within an Operating Division.

**Q. HOW ARE SHARED SERVICES COSTS THEN ALLOCATED OUT TO A RATE DIVISION?**

A. Shared Services allocations to the business unit are added to the business unit's general office costs and then further allocated to the applicable office rate divisions within the



1 business unit. For the Kentucky/Mid-States business unit, the factors utilized for further  
2 allocating applicable Shared Services and Kentucky/Mid-States general office costs are  
3 based on the composite factor, developed utilizing the same formula as described above,  
4 but limited to only those jurisdictions served by the Kentucky/Mid-States General Office.  
5 Other costs not allocated on the Company's books and records are also allocated using  
6 the same methodology.

7 **Q. HOW ARE SHARED SERVICES COSTS ALLOCATED WITHIN THE**  
8 **COMPANY'S TENNESSEE RATE FILING?**

9 A. O&M expense, depreciation expense, and taxes, other than income taxes, are allocated in  
10 the Company's filing utilizing the methodologies memorialized in the CAM. As  
11 previously stated, the Company does not allocate ratebase items for Shared Services  
12 (such as plant in service or accumulated deferred income taxes) within its books and  
13 records. Instead, these items are allocated in the context of rate proceedings such as this  
14 one and for certain reporting purposes. In this filing, ratebase items and ratemaking  
15 adjustments were allocated utilizing the composite factors set forth and described in  
16 Exhibit JCC-3 attached to my testimony. Such factors were derived utilizing the  
17 methodology described herein.

18  
19 **VI. ACCUMULATED DEFERRED INCOME TAX**

20 **Q. DOES THE COMPANY'S RATE FILING REFLECT A PROJECTION OF**  
21 **ACCUMULATED DEFERRED INCOME TAX (ADIT)?**

22 A. Yes. A projection of ADIT appears in the Schedules sponsored by and attached to the  
23 testimony of Mr. Thomas Petersen.

24 **Q. WERE ANY ITEMS EXCLUDED FROM THIS PROJECTION FOR**  
25 **RATEMAKING PURPOSES?**

26 A. Yes. Beginning October 2006, within the base period, this projection excludes any  
27 estimated amount for over/under recovery of gas cost, in order to normalize the tax effect  
28 thereof to zero. Additionally, the projection excludes book to tax differences in Shared  
29 Services that specifically relate to jurisdictions other than Tennessee.

**VII. ATTRITION YEAR BILLING DETERMINANTS AND MARGIN REVENUES**

**Q. PLEASE DESCRIBE THE PROJECTION OF BILLING DETERMINANTS FOR THE ATTRITION YEAR.**

A. The initial data utilized in the projection was the 12-month period ended February 2007. From those actual billing determinants, the weather normalization calculation based upon the Company's current WNA was developed and added to the actual amounts to arrive at weather normalized volume information.

**Q. WHY DID YOU USE THE 12 MONTHS ENDED FEBRUARY 2007 FOR THE PROJECTION INSTEAD OF THE 12 MONTHS ENDED DECEMBER 2006.**

A. The 12 months ended February provided an additional two months of actual data. Thus, for projecting the attrition year, the projection was only 20 months forward instead of 22 months forward as would have been the case had December 2006 been used. By using the 12 months ended February, the projection is more current.

**Q. DID YOU MAKE ANY VOLUME ADJUSTMENTS IN CONNECTION WITH YOUR CALCULATIONS?**

A. Yes. Certain adjustments to those volumes were made to reflect tariff changes to Rate Schedule 210 implemented in December 2006. These tariff changes provided relief from the monthly customer charge for elderly customers who meet a low-income threshold. Other adjustments were made to reflect changes to certain commercial and industrial customer volumes, to arrive at normalized volumes for the 12 months ended February 2007.

**Q. DID YOU MAKE ANY OTHER FORWARD-LOOKING ADJUSTMENTS?**

A. Yes. In projecting forward, the declining usage factor of 1.5%, the customer growth factor of 2.4% for summer months, and a winter-months customer growth factor of 2.5% were utilized. These are the same seasonal growth and declining use factors that were used by the TRA in Docket No. 05-00258.

**Q. DO THE RESULTS OF YOUR ANALYSIS APPEAR IN EXHIBIT JCC-4?**

A. Yes. Exhibit JCC-4 sets forth the applicable billing determinants and weather normalized margin projections for the attrition period used in this rate proceeding.

1  
2 **VIII. WNA HEAT LOAD AND BASE LOAD FACTORS**  
3

4 **Q. WHY IS THE COMPANY PROPOSING TO UPDATE HEAT LOAD AND BASE**  
5 **LOAD FACTORS FOR THE WNA IN THIS FILING?**

6 A. The factors currently in use are based from normal Heating Degree Days (HDDs)  
7 calculated during the early 1990s. Since that time, the National Oceanic and  
8 Atmospheric Administration (NOAA) has published normal HDDs for the 30 years  
9 beginning in 1971 and ending in the year 2000. The Company is updating the WNA's  
10 base load and heat load factors using these more recent normal HDDs, in order to better  
11 reflect more recent weather pattern data.

12 **Q. WHAT IS A HEATING DEGREE DAYS?**

13 A. An Heating Degree Day (HDD) is a measure of relative coldness expressed as an index.  
14 As the temperature drops below a certain level, the demand for energy to heat homes and  
15 businesses increases. HDDs are derived from daily temperature observations using 65° F  
16 as the baseline for the computation. They are calculated using the difference between 65°  
17 F and the average daily temperature. For example, if at the Nashville weather station, the  
18 high temperature on a particular day was 40 F° and the low was 30 F°, then the average  
19 daily temperature would be +35 F°. The difference between 65 F° and 35 F° is 30 F°,  
20 thereby yielding 30 Heating Degree Days. An HDD is never less than zero.

21 **Q. WHICH WEATHER STATIONS' HDD DATA ARE USED IN THE**  
22 **COMPUTATIONS?**

23 A. The stations used are the same as those used in the current WNA calculations. These  
24 stations are located in Bristol, Knoxville, and Nashville, Tennessee and Paducah,  
25 Kentucky.

26 **Q. WHAT IS THE EFFECT OF UPDATING THE HEAT LOAD AND BASE LOAD**  
27 **FACTORS?**

28 A. The current WNA tariff calculates a weather adjustment on each applicable customer's  
29 bill using the actual and normal Heating Degree Days occurring between the billing  
30 cycles for the customer. This calculation adjusts the customer's bill to match the normal

1 HDDs which were used to develop the tariff rates, thereby theoretically adjusting the  
2 revenues received by the Company to the levels approved in the Company's last rate  
3 filing. Over time, the approved heat load and base load factors become more and more  
4 out of sync with customer's overall usage patterns. Therefore, it is prudent to update  
5 these factors periodically using more recent normal HDDs and current consumption data.

6 **Q. WHY WOULD SUCH FACTORS GET "OUT OF SYNC"?**

7 A. Over time, a customer's usage pattern changes. With more efficient space heating units,  
8 water heaters, and other appliances, a customer's base load will drop over time as older,  
9 less efficient units are replaced. Also, with newer, more energy efficient construction,  
10 more insulation, energy efficient windows etc., a customer's heat load factors will change  
11 over time. The changes in factors from those currently being applied to the factors  
12 requested in this filing are:  
13

Heat Use/Base Use Factors		Current		Proposed	
Town	Weather Station	Base Use CCF	Heat Use CCF/HDD	Base Use CCF	Heat Use CCF/HDD
Union City - Res./PA Commercial	Paducah	13.906292 124.595029	0.156369 0.453633	10.43 112.80	0.124185 0.416839
Columbia, Shelbyville, Franklin Murfreesboro Res./PA Commercial	Nashville	13.035323 99.021858	0.173948 0.624513	11.34 112.93	0.147091 0.473009
Maryville, Morristown Res./PA Commercial	Knoxville	13.88633 111.454966	0.153366 0.658649	11.39 195.74	0.122329 0.392082
Johnson City, Elizabethton, Kingsport, Greeneville, Bristol Res./PA Commercial	Bristol	10.696903 169.773651	0.162066 0.611201	11.51 125.95	0.112572 0.489418

The current factors have been in effect since the Company's last rate case, in the 1990s.

**Q. WHAT IS THE EFFECT ON THE COMPANY'S MARGIN REVENUE RESULTING FROM UPDATING THE WNA FACTORS?**

A. The change in WNA factors results in a decrease to the Company's normalized revenues of approximately \$45,000.

**Q. HAVE OTHER GAS COMPANIES IN TENNESSEE UPDATED WNA FACTORS?**

1 A. Yes. Just recently, Chattanooga Gas updated factors in their rate filing. As in that case,  
2 the change in WNA factors causes a shift in how revenues are recovered from the WNA  
3 rider calculations to the base rates. The impact on the requested increase in this case is  
4 minimal.

5 **Q. HOW WERE THE UPDATED FACTORS CALCULATED?**

6 A. The factors were calculated by weather zone using regression analyses of the billing  
7 determinants as compared to the applicable Heating Degree Days during the WNA  
8 months. This analysis derives a heat sensitive factor and a base load factor for each  
9 weather zone. A heat load factor and a base load factor are calculated for residential and  
10 public authority combined, and separately for commercial customers. Each area's  
11 customer billing determinants encompassed the 24 months of data from March 2005  
12 through February 2007.

13 **Q. IS THERE AN INDICATION OF HOW WELL THESE FACTORS RELATE TO**  
14 **COLD WEATHER?**

15 A. Yes. As the factors are determined, a correlation measure, or  $R^2$ , is computed as a part of  
16 the regression analysis.  $R^2$  is the percentage variation in the dependent variable (HDDs)  
17 from the mean that is explained by the x to y (HDD to weather sensitive usage)  
18 relationship expressed by the regression equation. The  $R^2$  for residential customers shows  
19 a range by weather station from .9745 to .9888, with a correlation of 1.0000 being a  
20 "perfect" fit. This indicates that the resulting heat load and base load factors resulting  
21 from the regression analysis have a very high correlation to customer usage as it relates to  
22 weather. The results of the regression calculation and a graph of the results are provided  
23 in Attachment JCC-5.

24 **Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

25 A. Yes.

**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. 07-\_\_\_\_\_**

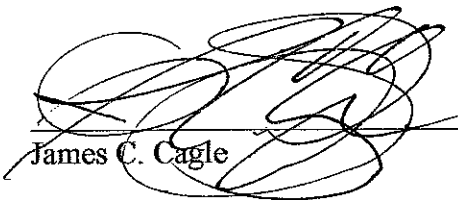
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**VERIFICATION**

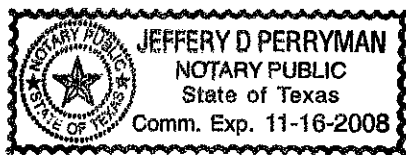
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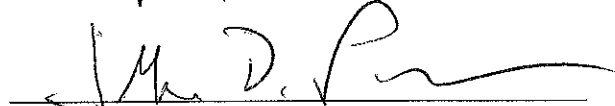
STATE OF TEXAS     )  
                              )  
COUNTY OF DALLAS )

I, James C. Cagle, being first duly sworn, state that I am Manager of Rates and Revenue Requirements 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 James C. Cagle 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.

  
\_\_\_\_\_  
James C. Cagle

Sworn and subscribed before me this 6<sup>th</sup> day of April, 2007.

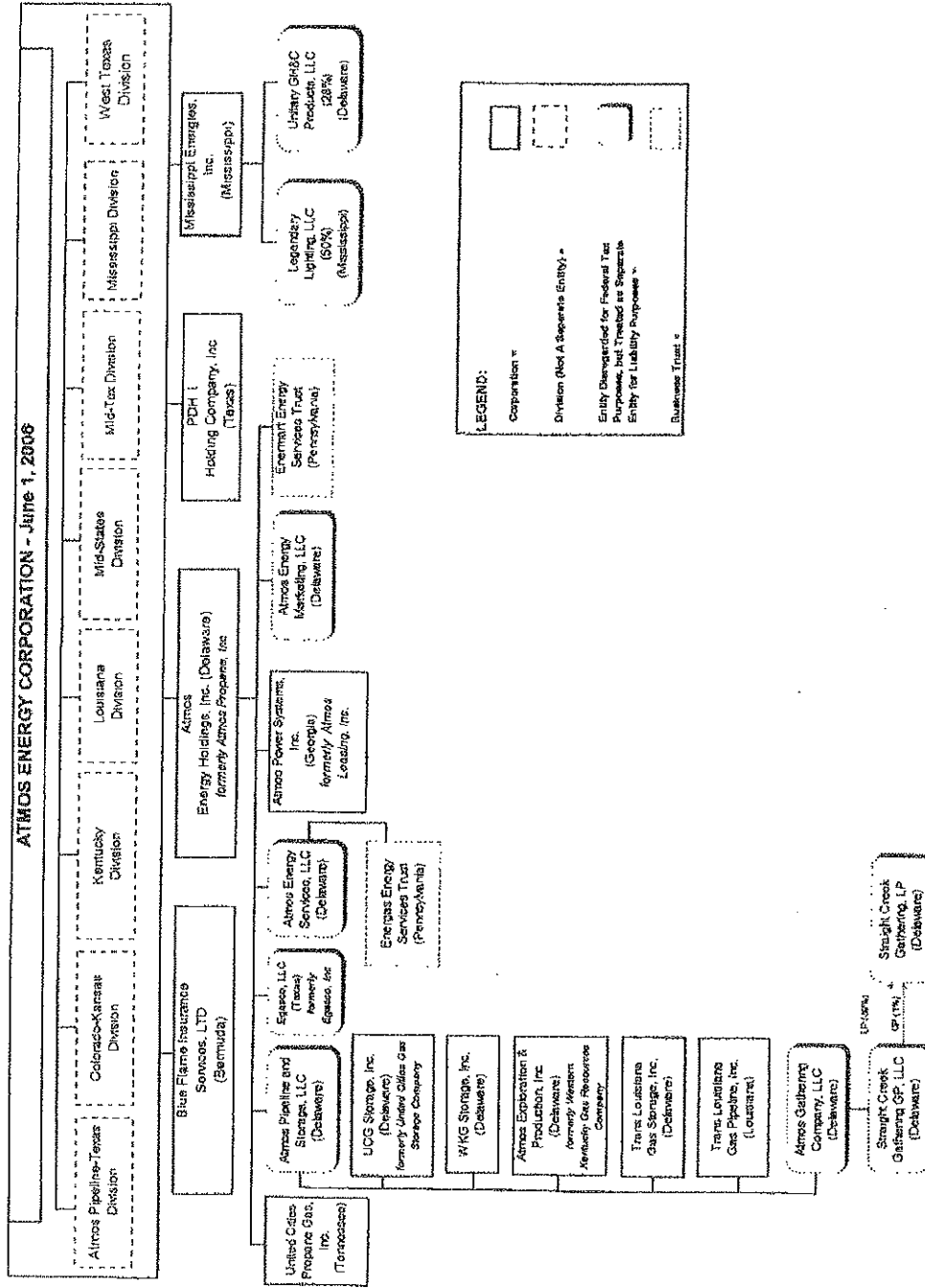


  
\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

DOCKET	TESTIMONY STYLED AS	TYPE	DATE
<b>Virginia Corporation Commission</b>			
PUE 000171	Atmos Energy Corporation for an increase in rates.	Direct	March-00
PUE 2003-00507	Atmos Energy Corporation for an increase in rates.	Direct	February-04
<b>Colorado Public Utility Commission</b>			
00S-668G	In the matter of the tariff sheets filed by Greeley Gas Company, a Division of Atmos Energy Corp with Advice Letter No. 419 regarding comprehensive changes to the rates, terms and conditions for natural gas sales, and transportation services	Direct	November-00
<b>Kansas Corporation Commission</b>			
03-ATMG-1036-RTS	In the Matter of the Application of Atmos Energy for Adjustment of its Natural Gas Rates in the States of Kansas	Direct and Rebuttal	June-03
<b>Railroad Commission of Texas</b>			
9002 -- 9135	Statement of Intent Filed by Energas Company to Increase Rates Charged in the 67 West Texas Cities: Petition by Energas for Review of 67 Municipal Rate Decisions	Direct and Rebuttal	March-00
9670, 9676	Petition for de novo review of the reduction of the gas utility rates of Atmos Energy Corp., Mid-tex division, by the cities of Addison, Benbrook, Blue Ridge, Et Al., and statement of intent filed by Atmos Energy Corp., Mid-tex division to change rates in the company's statewide gas utility system.	Direct	May-06
<b>Louisiana Public Service Commission</b>			
U-21922, U-23508 Consolidated	Louisiana Public Service Commission, ex parte, Consolidated Docket U-21922 and U-23508, In re: Docket No. U-21922, In re: Investigation of the Rates and Charges of Trans Louisiana Gas Company, A Division of Atmos Energy Corp. etc.	Direct and Rebuttal	March-99
U-28814	Petition of Trans Louisiana Gas Company, a regulatory division of Atmos Energy Corporation, requesting approval of a Conservation and Consumer Cost Stabilization rider.	Direct	May-05
<b>Georgia Public Utility Commission</b>			
20298-U	Filing of Increased Rates for Natural Gas Service	Direct	May-05
<b>Missouri Public Service Commission</b>			
GR-2006-0387	Atmos Energy Corporation's tariff revision designed to consolidate rates and implement a general rate increase for natural gas service	Direct	April-06
<b>Tennessee Regulatory Authority</b>			
05-00258	Petition of the Consumer Advocate to open an investigation to determine whether Atmos Energy Corp. should be required by the Tennessee Regulatory Authority to appear and show cause that Atmos Energy Corp. is not overreaching in violation of Tennessee Law and that it is charging rates that are just and reasonable.	Direct and Rebuttal	July-06
<b>Kentucky Public Service Commission</b>			
2006-00464	Application of Atmos Energy Corporation for an adjustment of gas rates	Direct	December-06
2005-00057	Office of the Attorney General Commonwealth of Kentucky	Rebuttal	February-07





Atmos Energy Corp.  
Summary of Allocation Factors  
to Tennessee Rate Division

Line No.	Description	Factor
1	Shared Services - General Office	4.13%
2	Shared Services - Customer Support	4.03%
3	Mid-States General Office	27.17%

**ATMOS ENERGY CORPORATION**  
**Allocation of Atmos Corporate (Co. # 10) Cost Based on 12 Month Period Ended 9/30/06**

A. Composite Allocation Factor:	Total	West Tex Div	CO/KS Div	LA Div 007	LA Div 077	MidStates Div	MVG	Atmos P/L	
								Mid	Tex
Gross Direct PP&E	\$ 5,370,692,810	398,740,964	354,701,307	152,641,872	376,265,849	915,901,270	323,787,054	1,988,757,546	859,896,947
Average Number of Customers	# 3,090,662	297,240	235,655	74,661	252,901	464,841	250,184	1,514,844	336
Total O&M Expense *	\$ 328,510,711	25,920,364	22,493,532	7,426,747	24,809,531	44,312,982	36,818,964	118,929,678	47,798,914
(* w/o Allocation )									
Total Composite Factor									
Gross Direct PP&E	% 100.00%	7.43%	6.60%	2.84%	7.01%	17.05%	6.03%	37.03%	16.01%
Average Number of Customers	% 100.00%	9.63%	7.62%	2.42%	8.18%	15.04%	8.09%	49.01%	0.01%
Total O&M Expense	% 100.00%	7.89%	6.85%	2.26%	7.55%	13.49%	11.21%	36.20%	14.55%
Total Composite Factor for FY 2 %	100.00%	8.32%	7.02%	2.51%	7.58%	15.19%	8.44%	40.75%	10.19%
All Utility Companies	% 100.00%	8.32%	7.02%	2.51%	7.58%	15.19%	8.44%	40.75%	10.19%
All Utility 25% to Mid Tex	100.00	14.80%	12.49%	4.46%	13.48%	27.02%	15.01%	10.19%	2.55%
Average Number of Customers	% 100.00%	9.62%	7.62%	2.42%	8.18%	15.04%	8.10%	49.02%	
LA Division	% 100.00%	0.00%	0.00%	24.90%	75.10%	0.00%	0.00%	0.00%	0.00%
Utility No Mid Tex	% 100.00%	16.89%	14.31%	5.13%	15.44%	31.07%	17.16%	0.00%	0.00%
Gas Control	% 100.00%	21.28%	18.01%	0.00%	0.00%	39.14%	21.57%	0.00%	0.00%

A. Composite Allocation Factor														
	Total	West Tex Div	CO/KS Div	LA Div 007	LA Div 077	MidStates Div	MVG	Mid-Tex Div	Atmos P/L Mktg. Tex	AESI	Atmos P/L Storage	Atmos Energy Power Systems	Atmos Energy Holdings	Atmos Energy Marketing
\$	5,439,711,534	398,740,964	354,701,307	152,641,872	376,265,849	915,901,270	323,787,054	1,988,757,546	839,896,947	52,369	49,971,843	3,610,397	-	15,384,115
#	3,091,479	297,240	235,655	74,661	252,901	464,841	230,184	1,514,844	336	-	2	2	-	813
\$	356,620,544	25,920,364	22,493,532	7,426,747	24,809,531	44,312,982	36,818,964	118,329,678	47,798,914	458,775	1,916,926	1,019,370	-	24,714,763
Total O&M Expense * (* w/o Allocation )														
%	100.00%	7.32%	6.52%	2.81%	6.92%	16.84%	5.95%	36.56%	15.81%	0.00%	0.92%	0.07%	0.00%	0.28%
%	100.00%	9.61%	7.62%	2.42%	8.09%	15.04%	8.09%	49.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.03%
%	100.00%	7.26%	6.31%	2.08%	6.96%	12.43%	10.32%	33.35%	13.40%	0.13%	0.54%	0.29%	0.00%	6.93%
Total Composite Factor for FY %														
	100.00%	8.06%	6.82%	2.44%	7.35%	14.77%	8.12%	39.64%	9.74%	0.04%	0.49%	0.12%	0.00%	2.41%

**Atmos Energy Corporation  
Atmos Energy Mid States Div  
Development of Allocation Factors  
For Fiscal Year 2007**

Div #	Division Name	Sept '06 Direct Property Plant & Equipment (1)	Percent of MidStates Property (2)	YE Sept'06 Total O & M w/o 922 (3)	Percent of MidStates O & M (4)	YE Sept '06 Avg Number of Customers (5)	Percent of MidStates Customers (6)	MidStates Allocation Percent (7)
70	KIRKSVILLE	7,270,981.92	0.79990	406204.7	1.10369	5,898	1.26882	1.05747
72	SE MISSOURI	43,034,064.30	4.73430	2292504.09	6.22889	34,414	7.40340	6.12220
92	ILLINOIS	43,536,393.19	4.78957	1,880,061.54	5.10826	22,858	4.91743	4.93842
93	TENNESSEE	299,907,053.52	32.99366	8,007,924.70	21.75808	124,423	26.76680	27.17285
95	GEORGIA	123,230,080.69	13.55691	5,398,591.16	14.66834	63,746	13.71344	13.97956
96	VIRGINIA	55,038,301.37	6.05493	1,739,831.53	4.72724	21,771	4.68347	5.15521
97	MISSOURI	34,972,138.73	3.84739	1,289,814.30	3.50451	14,260	3.06774	3.47321
98	IOWA	12,727,547.48	1.40020	551,751.90	1.49915	4,267	0.91791	1.27242
99	FT. BENNING	634,326.42	0.06978	32,030.65	0.08703	0	0.00000	0.05227
09	KENTUCKY	288,632,910.39	31.75336	15,205,659.00	41.31482	173,204	37.26098	36.77639
Total		908,983,798.01	100.00	36,804,373.57	100.00	464,840	100.00	100.00

Line No.	Description	12 Mths Ended Feb07		Rates effective Dec06		12 mths Feb07	Weather	12 mths Feb07	12 mths Feb07	12 mths Feb07
		Base Count	Volumes Cof	Monthly Customer chg	Commodity Charge/Cof	Margin at Dec06 rates	Adjustment Volumes Cof	WNA Adjusted Volumes Cof	Weather adj Margin at Dec06 rates	WNA \$ Adj at Dec06 rates
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	<b>RESIDENTIAL</b>									
2	210 RGS SUMMER	643,829	7,392,839	\$9.00	\$0.1207	\$5,786,780		7,392,839	\$5,786,780	\$0
3	210 RGS WINTER (weather sensitive)	772,039	58,740,950	12.00	0.1207	16,354,501	3,801,648	62,542,598	18,813,360	458,859
4	210 RGS SR CIT SUMMER			0.00	0.1207	0		0	0	
5	210 RGS SR CIT WINTER (weather sensitive)	31	3,405	0.00	0.1207	411		3,405	411	
6	211 HVAC	25	4,285	9.00	0.0887	511		4,285	511	
7	Total Residential	1,315,924	66,141,479			22,142,203	3,801,648	69,943,127	22,601,062	458,859
8										
9	<b>COMMERCIAL</b>									
10	211 HVAC	5	76	9.00	0.0887	50		76	50	0
11	220 COM/IND GS (weather sensitive)	180,556	46,121,913	24.00	0.1851	12,870,503	1,734,404	47,856,317	13,191,641	321,038
12	230 LRG COM/IND GS (weather sensitive)	71	909,283	200.00	0.1966	192,965	44,107	953,390	201,636	8,671
13	240 DEMAND/COMM GS	10		310.00		3,100		0	3,100	
14	Block 1 Volumes		200,000		0.0901	18,020		200,000	18,020	
15	Block 2 Volumes		61,960		0.0576	3,569		61,960	3,569	
16	Block 3 Volumes		0		0.0234	0		0	0	
17	Demand Volumes		19,234		1.6293	31,338		19,234	31,338	
18	250 OPT GS	39		310.00		12,080		0	12,080	
19	Block 1 Volumes		631,610		0.0901	56,908		631,610	56,908	
20	Block 2 Volumes		748,095		0.0576	43,090		748,095	43,090	
21	Block 3 Volumes				0.0234	0		0	0	
22	293 LRG TONN HVAC GS	12		25.00		300		0	300	
23	Block 1 Volumes		159,982		0.0901	14,414		159,982	14,414	
24	Block 2 Volumes		14,088		0.0576	811		14,088	811	
25	Block 3 Volumes				0.0234	0		0	0	
26	Total Commercial	180,693	48,847,007			13,247,169	1,778,511	50,625,518	13,576,868	329,710
27										
28	<b>INDUSTRIAL</b>									
29	220 COM/IND GS	3,409	5,358,946	24.00	0.1851	1,073,757		5,358,946	1,073,757	
30	230 LRG COM/IND GS	202	2,304,866	200.00	0.1966	493,537		2,304,866	493,537	
31	240 DEMAND/COMM GS	12		310.00		3,720		0	3,720	
32	Block 1 Volumes		240,000		0.0901	21,624		240,000	21,624	
33	Block 2 Volumes		403,380		0.0576	23,235		403,380	23,235	
34	Block 3 Volumes		0		0.0234	0		0	0	
35	Demand Volumes		40,586		1.6293	66,143		40,586	66,143	
36	250 OPT GS	565		310.00		175,066		0	175,066	
37	Block 1 Volumes		6,087,350		0.0901	548,470		6,087,350	548,470	
38	Block 2 Volumes		6,157,590		0.0576	354,677		6,157,590	354,677	
39	Block 3 Volumes				0.0234	0		0	0	
40	280 - ECONOMIC DEV GS (250 OPT)	1		310.00		310		0	310	
41	Block 1 Volumes		20,000		0.0675	1,350		20,000	1,350	
42	Block 2 Volumes		93,900		0.0432	4,056		93,900	4,056	
43	Block 3 Volumes				0.0175	0		0	0	
44	282 CNG/Prime Mover	12		0.00		0		0	0	
45	Block 1 Volumes		25,133		0.0901	2,264		25,133	2,264	
46	Block 2 Volumes		-		0.0576	0		0	0	
47	Block 3 Volumes				0.0234	0		0	0	
48	292 COGEN/CNG	24		25.00		600		0	600	
49	Block 1 Volumes		175,397		0.0901	15,803		175,397	15,803	
50	Block 2 Volumes		5,372		0.0576	309		5,372	309	
51	Block 3 Volumes				0.0234	0		0	0	
52		4,225	20,871,934			2,784,923	0	20,871,934	2,784,923	
53										
54	<b>PUBLIC AUTHORITY</b>									
55	211 HVAC			9.00	0.1207	0		0	0	
56	221 EXPERIMENTAL SGS	72	677,504	25.00	0.0985	69,212		677,504	69,212	
57	225 PAG SR CIT SUMMER			0.00	0.1207	0		0	0	
58	225 PAG SR CIT WINTER (weather sensitive)			0.00	0.1207	0		0	0	
59	225 PAG GS - SUMMER	2,475	111,438	9.00	0.1207	35,726		111,438	35,726	
60	225 PAG GS - WINTER (weather sensitive)	3,475	474,135	12.00	0.1207	98,922	72,446	546,581	107,666	8,744
61		6,022	1,263,078			203,959	72,446	1,335,523	212,604	8,744
62										
63	<b>TRANSPORTATION</b>									
64	260 - TRANSP (220 SML COM/INDG)	22	153,483	310.00	0.1851	35,230		153,483	35,230	
65	260 - TRANSP (230 LRG COM/INDG)	393	8,529,546	310.00	0.1966	1,798,739		8,529,546	1,798,739	
66	260 - TRANSP (240 DEMAND/COMM GS)	13		310.00		4,030		0	4,030	
67	Block 1 Volumes		253,230		0.0901	22,816		253,230	22,816	
68	Block 2 Volumes		593,290		0.0576	34,174		593,290	34,174	
69	Block 3 Volumes		-		0.0234	0		0	0	
70	Demand Volumes		51,635		1.6293	84,129		51,635	84,129	
71	260 - TRANSP (280/240 ECON DEV - DEMAND/COMM)	12		310.00		3,720		0	3,720	
72	Block 1 Volumes		240,000		0.0675	16,200		240,000	16,200	
73	Block 2 Volumes		410,760		0.0432	17,745		410,760	17,745	
74	Block 3 Volumes		-		0.0175	0		0	0	
75	Demand Volumes		35,626		1.2220	43,535		35,626	43,535	
76	280 - TRANSP (250 OPT GS MASS METER)	15		310.00		4,650		0	4,650	
77	Block 1 Volumes		212,170		0.0901	19,117		212,170	19,117	

Line No.	Description	12 Mths Ended Feb07		Rates effective Dec06		12 mths Feb07	Weather	12 mths Feb07	12 mths Feb07	12 mths Feb07
		Base Count	Volumes Cof	Monthly Customer chg	Commodity Charge/Cof	Margin at Dec06 rates	Adjustment Volumes Cof	WNA Adjusted Volumes Cof	Weather adj Margin at Dec06 rates	WNA \$ Adj at Dec06 rates
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
78	Block 2 Volumes		204,680		0.0576	11,790		204,680	11,790	
79	Block 3 Volumes				0.0234	0		0	0	
80	260 - TRANSP (260 OPT GS)	521		310.00		161,510		0	161,510	
81	Block 1 Volumes		9,857,168		0.0901	889,032		9,857,168	889,032	
82	Block 2 Volumes		27,776,288		0.0576	1,599,914		27,776,288	1,599,914	
83	Block 3 Volumes				0.0234	0		0	0	
84	260 - TRANSP (280/250 ECON DEV - OPT GS)	28		310.00		8,680		0	8,680	
85	Block 1 Volumes		473,690		0.0675	31,974		473,690	31,974	
86	Block 2 Volumes		1,657,600		0.0432	71,608		1,657,600	71,608	
87	Block 3 Volumes				0.0175	0		0	0	
88	SPECIAL CONTRACTS	82	38,656,840			1,059,233		38,656,840	1,059,233	
89										
90	Total Transportation	1,086	89,028,746			5,917,824	0	89,028,746	5,917,824	
91										
92	TOTALS	1,507,949	226,152,244			\$44,295,968	5,652,804	231,804,848	\$45,093,281	\$797,313
93										
94	4870 - Forfeited Discount					\$1,366,814			\$1,366,814	
95	4860 - Miscellaneous Service charges					175,696			175,696	
96	TOTAL MARGIN REVENUES					<u>\$45,838,478</u>			<u>\$46,635,791</u>	

Summary of Weather Normalized Margin Revenue at Present Rates - Current WNA Factors

Actual Twelve Months Ended February 28, 2007 and Attribution Period Twelve Months Ended October 31, 2008

Line No.	Description	12 mths Feb07		Rates effective Dec08		12mths Feb07 Weather adj Margin at Dec08 rates	Customer Changes Base Count	Customer Growth Base Count	Declining Usage Volumes Ccf	Adjusted Base Count	Adjusted Volumes Ccf	Total Adjusted Margin Rev
		Base Count	Weather Adj. Vol Ccf	Monthly Customer chg	Commodity Charge/Ccf							
1	RESIDENTIAL											
2	210 RGS SUMMER	543,828	7,392,839	\$9.00	\$0.1207	\$5,786,780	A (16,315)	21,101	(186,447)	548,615	7,271,449	\$5,816,200
3	210 RGS WINTER (weather sensitive)	772,039	62,542,598	12.00	0.1207	16,613,360	A (23,161)	31,203	(1,579,852)	780,081	61,614,231	16,797,811
4	210 RGS SR CIT SUMMER			0.00	0.1207		A 16,315	653	(5,768)	16,967	224,890	27,144
5	210 RGS SR CIT WINTER (weather sensitive)	31	3,405	0.00	0.1207	411	A 23,161	966	(48,950)	24,159	1,809,053	230,423
6	211 HVAC	25	4,285	9.00	0.0667	511				25	4,285	511
7	Total Residential	1,315,924	69,943,127			22,601,062	0	53,823	2,901,797	1,369,847	71,023,908	22,871,088
8												
9	COMMERCIAL											
10	211 HVAC	5	76	9.00	0.0667	50				5	76	50
11	220 COM/IND GS (weather sensitive)	180,556	47,856,317	24.00	0.1851	13,191,541				180,556	47,856,317	13,191,541
12	230 LRG COM/IND GS (weather sensitive)	71	953,390	200.00	0.1986	201,636				71	953,390	201,636
13	240 DEMAND/COMM GS	10	0	310.00		3,100	B (10)			0	0	0
14	Block 1 Volumes		200,000		0.0901	18,020			(200,000)	0	0	0
15	Block 2 Volumes		61,960		0.0576	3,589			(61,960)	0	0	0
16	Block 3 Volumes		0		0.0234	0			0	0	0	0
17	Demand Volumes		19,234		1.6293	31,338			(19,234)	0	0	0
18	250 OPT GS	39	0	310.00		12,090				39	0	12,090
19	Block 1 Volumes		631,610		0.0901	56,908				0	631,610	56,908
20	Block 2 Volumes		748,095		0.0576	43,090				0	748,095	43,090
21	Block 3 Volumes		0		0.0234	0				0	0	0
22	293 LRG TONN HVAC GS	12	0	25.00		300				12	0	300
23	Block 1 Volumes		159,982		0.0901	14,414				0	159,982	14,414
24	Block 2 Volumes		14,088		0.0576	811				0	14,088	811
25	Block 3 Volumes		0		0.0234	0				0	0	0
26	Total Commercial	180,683	50,825,518			13,576,868	(10)			180,683	50,825,518	13,520,842
27												
28	INDUSTRIAL											
29	220 COM/IND GS	3,409	5,358,948	24.00	0.1851	1,073,757				3,409	5,358,948	1,073,757
30	230 LRG COM/IND GS	202	2,304,866	200.00	0.1986	493,537	C (7)			195	2,062,858	490,465
31	240 DEMAND/COMM GS	12	0	310.00		3,720				12	0	3,720
32	Block 1 Volumes		240,000		0.0901	21,624				0	240,000	21,624
33	Block 2 Volumes		403,380		0.0576	23,235				0	403,380	23,235
34	Block 3 Volumes		0		0.0234	0				0	0	0
35	Demand Volumes		40,596		1.6293	65,143				0	40,596	65,143
36	250 OPT GS	565	0	310.00		175,066				565	0	175,066
37	Block 1 Volumes		6,087,350		0.0901	548,470				0	6,087,350	548,470
38	Block 2 Volumes		6,157,590		0.0576	354,677				0	6,157,590	354,677
39	Block 3 Volumes		0		0.0234	0				0	0	0
40	280 - ECONOMIC DEV GS (250 OPT)	1	0	310.00		310	D 12			13	0	4,030
41	Block 1 Volumes		20,000		0.0675	1,350		240,000		0	260,000	17,550
42	Block 2 Volumes		93,900		0.0432	4,056		1,751,870		0	1,845,770	79,737
43	Block 3 Volumes		0		0.0175	0				0	0	0
44	292 CNGPrime Mover	12	0	0.00		0				12	0	0
45	Block 1 Volumes		25,133		0.0901	2,264				0	25,133	2,264
46	Block 2 Volumes		0		0.0576	0				0	0	0
47	Block 3 Volumes		0		0.0234	0				0	0	0
48	292 COGEN/CNG	24	0	25.00		600				24	0	600
49	Block 1 Volumes		175,397		0.0901	15,803				0	175,397	15,803
50	Block 2 Volumes		5,372		0.0576	309				0	5,372	309
51	Block 3 Volumes		0		0.0234	0				0	0	0
52		4,225	20,871,934			2,784,923	5	1,779,860		4,230	22,651,794	2,837,442
53												
54	PUBLIC AUTHORITY											
55	211 HVAC		0	9.00	0.1207	0				0	0	0
56	221 EXPERIMENTAL SGS	72	677,504	25.00	0.0995	69,212				72	677,504	69,212
57	225 PAG SR CIT SUMMER			0.00	0.1207	0	A 74	3,343		74	3,343	404
58	225 PAG SR CIT WINTER (weather sensitive)			0.00	0.1207	0	A 104	16,397		104	16,397	1,979
59	225 PAG GS - SUMMER	2,475	111,438	9.00	0.1207	35,726	A (74)	(3,343)		2,401	108,095	34,654
60	225 PAG GS - WINTER (weather sensitive)	3,475	548,681	12.00	0.1207	107,866	A (104)	(16,397)		3,370	530,184	104,436
61		6,022	1,335,523			212,604	0	0		6,022	1,335,523	210,684
62												
63	TRANSPORTATION											
64	260 - TRANSP (220 SML COM/INDG)	22	163,463	310.00	0.1851	35,230				22	163,463	35,230
65	260 - TRANSP (230 LRG COM/INDG)	393	8,529,546	310.00	0.1986	1,798,739	C (14)	(563,750)		379	7,965,796	1,683,588
66	260 - TRANSP (240 DEMAND/COMM GS)	13	0	310.00		4,030	E			13	0	4,030
67	Block 1 Volumes		253,230		0.0901	22,816				0	253,230	22,816
68	Block 2 Volumes		593,280		0.0576	34,174				0	593,280	34,174
69	Block 3 Volumes		0		0.0234	0				0	0	0
70	Demand Volumes		51,635		1.6293	84,129				0	51,635	84,129
71	260 - TRANSP (280/240 ECON DEV - DEMAND/COMM)	12	0	310.00		3,720				12	0	3,720
72	Block 1 Volumes		240,000		0.0675	16,200				0	240,000	16,200
73	Block 2 Volumes		410,760		0.0432	17,745				0	410,760	17,745
74	Block 3 Volumes		0		0.0175	0				0	0	0
75	Demand Volumes		35,626		1.2220	43,535				0	35,626	43,535
76	260 - TRANSP (250 OPT GS MASS METER)	15	0	310.00		4,650	C 9			24	0	7,440
77	Block 1 Volumes		212,170		0.0901	19,117	E	180,000		0	392,170	35,335
78	Block 2 Volumes		204,680		0.0576	11,790		161,790		0	366,470	21,109
79	Block 3 Volumes		0		0.0234	0				0	0	0
80	260 - TRANSP (250 OPT GS)	521	0	310.00		161,510	F 20			541	0	167,710
81	Block 1 Volumes		9,867,168		0.0901	889,032	B	280,000		0	10,147,168	914,260
82	Block 2 Volumes		27,776,286		0.0576	1,599,914	G	216,780		0	27,993,066	1,612,401
83	Block 3 Volumes		0		0.0234	0		0		0	0	0
84	260 - TRANSP (280/250 ECON DEV - OPT GS)	28	0	310.00		8,680				28	0	8,680
85	Block 1 Volumes		473,690		0.0675	31,974				0	473,690	31,974
86	Block 2 Volumes		1,657,600		0.0432	71,608				0	1,657,600	71,608
87	Block 3 Volumes		0		0.0175	0				0	0	0
88	SPECIAL CONTRACT (facility chg only)	82	36,656,840			1,059,233	(22)	(20,404,673)	0	0	18,252,167	592,474
89												



## Summary of Weather Normalized Margin Revenue at Present Rates - Current WNA Factors

Actual Twelve Months Ended February 28, 2007 and Attribution Period Twelve Months Ended October 31, 2006

Line No.	Description	12 mths Feb07		Rates effective Dec06		12mths Feb07 Weather adj. Margin at Dec06 rates	Customer Changes		Customer Growth		Declining Usage Volumes Cof	Adjusted Base Count	Adjusted Volumes Cof	Total Adjusted Margin Rev
		Base Count	Weather Adj. Vol Cof	Monthly Customer chg	Commodity Charge/Cof		Base Count	Volumes Cof	Base Count	Volumes Cof				
90	Total Transportation	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
91		1,096	89,028,746			5,917,824	(7)	(20,129,853)				1,079	68,896,693	5,408,134
92	TOTALS	1,507,949	231,804,848			\$45,063,261	(12)	(18,611,953)	63,923	2,901,797	(1,821,016)	1,561,860	214,273,676	\$44,848,191
93														
94	4870 - Forfeited Discount					\$1,366,814								\$1,366,814
95	4880 - Miscellaneous Service charges					175,696								175,696
96	TOTAL MARGIN REVENUES					\$46,635,791								\$46,390,701

Line No.	Description	12 Mths Ended Feb07		Rates effective Dec06		12 mths Feb07	Weather	12 mths Feb07	12 mths Feb07	12 mths Feb07
		Base Count	Volumes Ccf	Monthly Customer chg	Commodity Charge/Ccf	Margin at Dec06 rates	Adjustment Volumes Ccf	WNA Adjusted Volumes Ccf	Weather adj Margin at Dec06 rates	WNA \$ Adj at Dec06 rates
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1	<b>RESIDENTIAL</b>									
2	210 RGS SUMMER	543,829	7,392,839	\$9.00	\$0.1207	\$5,786,780		7,392,839	\$5,786,780	
3	210 RGS WINTER (weather sensitive)	772,039	58,740,950	12.00	0.1207	18,354,501	3,718,792	62,457,742	16,803,118	448,617
4	210 RGS SR CIT SUMMER			0.00	0.1207	0		0	0	
5	210 RGS SR CIT WINTER (weather sensitive)	31	3,405	0.00	0.1207	411		3,405	411	
6	211 HVAC	25	4,285	9.00	0.0667	511		4,285	511	
7	Total Residential	1,315,924	66,141,479			22,142,203	3,718,792	69,858,271	22,500,820	448,617
9	<b>COMMERCIAL</b>									
10	211 HVAC	5	76	9.00	0.0667	50		76	50	
11	220 COM/IND GS (weather sensitive)	180,556	46,121,913	24.00	0.1851	12,870,503	1,552,948	47,674,861	13,157,953	287,451
12	230 LRG COM/IND GS (weather sensitive)	71	909,283	200.00	0.1966	192,965	30,435	948,718	200,718	7,753
13	240 DEMAND/COMM GS	10		310.00		3,100		0	3,100	
14	Block 1 Volumes		200,000		0.0901	18,020		200,000	18,020	
15	Block 2 Volumes		81,980		0.0578	3,589		81,980	3,589	
16	Block 3 Volumes		0		0.0234	0		0	0	
17	Demand Volumes		19,234		1.8293	31,338		19,234	31,338	
18	250 OPT GS	39		310.00		12,090		0	12,090	
19	Block 1 Volumes		631,610		0.0901	58,908		631,610	58,908	
20	Block 2 Volumes		748,095		0.0578	43,090		748,095	43,090	
21	Block 3 Volumes				0.0234	0		0	0	
22	293 LRG TONN HVAC GS	12		25.00		300		0	300	
23	Block 1 Volumes		159,982		0.0901	14,414		159,982	14,414	
24	Block 2 Volumes		14,088		0.0578	811		14,088	811	
25	Block 3 Volumes				0.0234	0		0	0	
26	Total Commercial	180,693	48,847,007			13,247,159	1,592,383	50,439,390	13,542,362	295,204
28	<b>INDUSTRIAL</b>									
29	220 COM/IND GS	3,409	5,358,946	24.00	0.1851	1,073,757		5,358,946	1,073,757	
30	230 LRG COM/IND GS	202	2,304,866	200.00	0.1966	493,537		2,304,866	493,537	
31	240 DEMAND/COMM GS	12		310.00		3,720		0	3,720	
32	Block 1 Volumes		240,000		0.0901	21,624		240,000	21,624	
33	Block 2 Volumes		403,380		0.0578	23,235		403,380	23,235	
34	Block 3 Volumes		0		0.0234	0		0	0	
35	Demand Volumes		40,598		1.8293	66,143		40,598	66,143	
36	250 OPT GS	565		310.00		175,086		0	175,086	
37	Block 1 Volumes		6,087,350		0.0901	548,470		6,087,350	548,470	
38	Block 2 Volumes		8,157,590		0.0578	354,677		8,157,590	354,677	
39	Block 3 Volumes				0.0234	0		0	0	
40	280 - ECONOMIC DEV GS (250 OPT)	1		310.00		310		0	310	
41	Block 1 Volumes		20,000		0.0675	1,350		20,000	1,350	
42	Block 2 Volumes		93,900		0.0432	4,056		93,900	4,056	
43	Block 3 Volumes				0.0175	0		0	0	
44	292 CNG/Prime Mover	12		0.00		0		0	0	
45	Block 1 Volumes		25,133		0.0901	2,264		25,133	2,264	
46	Block 2 Volumes		-		0.0578	0		0	0	
47	Block 3 Volumes				0.0234	0		0	0	
48	292 COGEN/CNG	24		25.00		600		0	600	
49	Block 1 Volumes		175,397		0.0901	15,803		175,397	15,803	
50	Block 2 Volumes		5,372		0.0578	309		5,372	309	
51	Block 3 Volumes				0.0234	0		0	0	
52		4,225	20,871,934			2,784,923	0	20,871,934	2,784,923	
54	<b>PUBLIC AUTHORITY</b>									
55	211 HVAC			9.00	0.1207	0		0	0	
56	221 EXPERIMENTAL SGS	72	677,504	25.00	0.0995	69,212		677,504	69,212	
57	225 PAG SR CIT SUMMER			0.00	0.1207	0		0	0	
58	225 PAG SR CIT WINTER (weather sensitive)			0.00	0.1207	0		0	0	
59	225 PAG GS - SUMMER	2,475	111,438	9.00	0.1207	35,728		111,438	35,728	
60	225 PAG GS - WINTER (weather sensitive)	3,475	474,135	12.00	0.1207	98,922	70,919	545,054	107,482	8,580
61		6,022	1,263,078			203,859	70,919	1,333,997	212,419	8,580
63	<b>TRANSPORTATION</b>									
64	280 - TRANSP (220 SML COM/INDG)	22	153,483	310.00	0.1851	35,230		153,483	35,230	
65	280 - TRANSP (230 LRG COM/INDG)	393	8,529,546	310.00	0.1966	1,798,739		8,529,546	1,798,739	
66	280 - TRANSP (240 DEMAND/COMM GS)	13		310.00		4,030		0	4,030	
67	Block 1 Volumes		253,230		0.0901	22,816		253,230	22,816	
68	Block 2 Volumes		593,290		0.0578	34,174		593,290	34,174	
69	Block 3 Volumes		-		0.0234	0		0	0	
70	Demand Volumes		51,635		1.8293	84,129		51,635	84,129	
71	280 - TRANSP (280/240 ECON DEV - DEMAND/COMM)	12		310.00		3,720		0	3,720	
72	Block 1 Volumes		240,000		0.0675	16,200		240,000	16,200	
73	Block 2 Volumes		410,780		0.0432	17,745		410,780	17,745	
74	Block 3 Volumes		-		0.0175	0		0	0	
75	Demand Volumes		35,626		1.2220	43,535		35,626	43,535	
76	280 - TRANSP (250 OPT GS MASS METER)	15		310.00		4,650		0	4,650	

Line No.	Description	12 Mths Ended Feb07		Rates effective Dec06		12 mths Feb07	Weather	12 mths Feb07	12 mths Feb07	12 mths Feb07
		Base Count	Volumes Ccf	Monthly Customer chg	Commodity Charge/Ccf	Margin at Dec06 rates	Adjustment Volumes Ccf	WNA Adjusted Volumes Ccf	Weather adj Margin at Dec06 rates	WNA \$ Adj at Dec06 rates
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
77	Block 1 Volumes		212,170		0.0901	19,117		212,170	19,117	
78	Block 2 Volumes		204,680		0.0576	11,790		204,680	11,790	
79	Block 3 Volumes				0.0234	0		0	0	
80	280 - TRANSP (250 OPT GS)	521		310.00		161,510		0	161,510	
81	Block 1 Volumes		9,867,168		0.0901	889,032		9,867,168	889,032	
82	Block 2 Volumes		27,776,288		0.0576	1,599,914		27,776,288	1,599,914	
83	Block 3 Volumes				0.0234	0		0	0	
84	280 - TRANSP (280/250 ECON DEV - OPT GS)	28		310.00		8,880		0	8,880	
85	Block 1 Volumes		473,690		0.0675	31,974		473,690	31,974	
86	Block 2 Volumes		1,657,600		0.0432	71,608		1,657,600	71,608	
87	Block 3 Volumes				0.0175	0		0	0	
88	SPECIAL CONTRACT (facility chg only)	82	38,656,840			1,059,233		38,656,840	1,059,233	
89										
90	Total Transportation	1,086	89,028,746			5,917,824	0	89,028,746	5,917,824	
91										
92	TOTALS	1,507,949	226,152,244			\$44,295,868	5,380,084	231,532,338	\$45,048,348	\$752,380
93										
94	4870 - Forfeited Discount					\$1,366,814			\$1,366,814	
95	4880 - Miscellaneous Service charges					175,696			175,696	
96	TOTAL MARGIN REVENUES					<u>\$45,838,478</u>			<u>\$46,590,858</u>	

Line No.	Description	12 mths Feb07		Rates effective Dec06		12mths Feb07 Weather adj Margin at Dec06 rates	V T	Customer Changes		Customer Growth		Declining Usage Volumes Ccf	Adjusted Base Count	Adjusted Volumes Ccf	Total Adjusted Margin Rev
		Base Count	Weather Adj. Vol Ccf	Monthly Customer chg	Commodity Charge/Ccf			Base Count	Volumes Ccf	Base Count	Volumes Ccf				
1	RESIDENTIAL														
2	210 RGS SUMMER	543,829	7,392,839	\$9.00	\$0.1207	\$5,786,780	A	(16,315)	(221,785)	21,101	286,842	(188,447)	548,615	7,271,449	\$5,815,200
3	210 RGS WINTER (weather sensitive)	772,039	62,457,742	12.00	0.1207	16,803,118	A	(23,161)	(1,873,732)	31,203	2,524,334	(1,577,709)	780,081	61,530,635	16,787,721
4	210 RGS SR CIT SUMMER			0.00	0.1207	0	A	16,315	221,785	653	8,671	(5,765)	16,967	224,890	27,144
5	210 RGS SR CIT WINTER (weather sensitive)	31	3,405	0.00	0.1207	411	A	23,161	1,873,732	986	78,214	(48,884)	24,159	1,908,468	230,111
6	211 HVAC	25	4,285	9.00	0.0867	511							25	4,285	511
7	Total Residential	1,315,924	69,858,271			22,590,820		0	0	53,923	2,898,261	(1,818,808)	1,369,847	70,937,726	22,860,686
8															
9	COMMERCIAL														
10	211 HVAC	5	78	9.00	0.0867	50							5	78	50
11	220 COM/IND GS (weather sensitive)	180,556	47,874,861	24.00	0.1851	13,157,953							180,556	47,874,861	13,157,953
12	230 LRG COM/IND GS (weather sensitive)	71	948,718	200.00	0.1986	200,718							71	948,718	200,718
13	240 DEMAND/COMM GS	10	0	310.00		3,100	B	(10)					0	0	0
14	Block 1 Volumes		200,000		0.0901	18,020			(200,000)				0	0	0
15	Block 2 Volumes		61,960		0.0576	(61,960)							0	0	0
16	Block 3 Volumes		0		0.0234	0			0				0	0	0
17	Demand Volumes		19,234		1.6293	31,338			(19,234)				0	0	0
18	250 OPT GS	39	0	310.00		12,090							39	0	12,090
19	Block 1 Volumes		631,610		0.0901	56,908							0	631,610	56,908
20	Block 2 Volumes		748,065		0.0576	43,090							0	748,065	43,090
21	Block 3 Volumes		0		0.0234	0							0	0	0
22	293 LRG TONN HVAC GS	12	0	25.00		390							12	0	300
23	Block 1 Volumes		159,982		0.0901	14,414							0	159,982	14,414
24	Block 2 Volumes		14,088		0.0576	811							0	14,088	811
25	Block 3 Volumes		0		0.0234	0							0	0	0
26	Total Commercial	180,693	50,439,390			13,542,362		(10)	(261,960)	0	0	0	180,683	50,177,430	13,486,336
27															
28	INDUSTRIAL														
29	220 COM/IND GS	3,409	5,358,946	24.00	0.1851	1,073,757							3,409	5,358,946	1,073,757
30	230 LRG COM/IND GS	202	2,304,866	200.00	0.1986	493,537	C	(7)	(212,010)				185	2,092,856	450,455
31	240 DEMAND/COMM GS	12	0	310.00		3,720							12	0	3,720
32	Block 1 Volumes		240,000		0.0901	21,624							0	240,000	21,624
33	Block 2 Volumes		403,380		0.0576	23,235							0	403,380	23,235
34	Block 3 Volumes		0		0.0234	0							0	0	0
35	Demand Volumes		40,586		1.6293	66,143							0	40,586	66,143
36	250 OPT GS	565	0	310.00		175,066							565	0	175,066
37	Block 1 Volumes		6,087,350		0.0901	548,470							0	6,087,350	548,470
38	Block 2 Volumes		6,157,590		0.0576	354,677							0	6,157,590	354,677
39	Block 3 Volumes		0		0.0234	0							0	0	0
40	260 - ECONOMIC DEV GS (250 OPT)	1	0	310.00		310	D	12					13	0	4,030
41	Block 1 Volumes		20,000		0.0875	1,350			240,000				0	260,000	17,550
42	Block 2 Volumes		93,900		0.0432	4,056			1,751,870				0	1,845,770	79,737
43	Block 3 Volumes		0		0.0175	0							0	0	0
44	292 CNG/Prime Mover	12	0	0.00		0							12	0	0
45	Block 1 Volumes		25,133		0.0901	2,264							0	25,133	2,264
46	Block 2 Volumes		0		0.0576	0							0	0	0
47	Block 3 Volumes		0		0.0234	0							0	0	0
48	292 COGEN/CNG	24	0	25.00		600							24	0	600
49	Block 1 Volumes		175,397		0.0901	15,803							0	175,397	15,803
50	Block 2 Volumes		5,372		0.0576	309							0	5,372	309
51	Block 3 Volumes		0		0.0234	0							0	0	0
52		4,225	20,871,934			2,784,923		5	1,779,860	0	0	0	4,230	22,651,794	2,837,442
53															
54	PUBLIC AUTHORITY														
55	211 HVAC	0	0	9.00	0.1207	0							0	0	0
56	221 EXPERIMENTAL SGS	72	677,504	25.00	0.0996	69,212							72	677,504	69,212
57	225 PAG SR CIT SUMMER			0.00	0.1207	0	A	74	3,343				74	3,343	404
58	225 PAG SR CIT WINTER (weather sensitive)			0.00	0.1207	0	A	104	16,352				104	16,352	1,974
59	225 PAG GS - SUMMER	2,475	111,438	9.00	0.1207	35,726	A	(74)	(3,343)				2,401	108,095	34,654
60	225 PAG GS - WINTER (weather sensitive)	3,475	545,064	12.00	0.1207	107,482	A	(104)	(16,352)				3,370	528,703	104,258
61		6,022	1,333,997			212,419		0	0	0	0	0	6,022	1,333,997	210,500
62															
63	TRANSPORTATION														
64	260 - TRANSP (220 SML COM/INDG)	22	153,483	310.00	0.1851	35,230							22	153,483	35,230
65	260 - TRANSP (230 LRG COM/INDG)	393	8,529,546	310.00	0.1986	1,798,739	C	(14)	(563,750)				379	7,965,796	1,683,566
66	260 - TRANSP (240 DEMAND/COMM GS)	13	0	310.00		4,030	E						13	0	4,030
67	Block 1 Volumes		253,230		0.0901	22,816							0	253,230	22,816
68	Block 2 Volumes		593,290		0.0576	34,174							0	593,290	34,174
69	Block 3 Volumes		0		0.0234	0							0	0	0
70	Demand Volumes		51,635		1.6293	84,129							0	51,635	84,129
71	260 - TRANSP (280/240 ECON DEV - DEMAND/COMM)	12	0	310.00		3,720							12	0	3,720
72	Block 1 Volumes		240,000		0.0875	18,200							0	240,000	16,200
73	Block 2 Volumes		410,760		0.0432	17,745							0	410,760	17,745
74	Block 3 Volumes		0		0.0175	0							0	0	0
75	Demand Volumes		35,628		1.2220	43,535							0	35,628	43,535
76	260 - TRANSP (250 OPT GS MASS METER)	15	0	310.00		4,650	C	9					24	0	7,440
77	Block 1 Volumes		212,170		0.0901	19,117	E		180,000				0	392,170	35,335
78	Block 2 Volumes		204,680		0.0576	11,790			161,790				0	366,470	21,109
79	Block 3 Volumes		0		0.0234	0							0	0	0
80	260 - TRANSP (250 OPT GS)	521	0	310.00		161,510	F	20					541	0	167,710
81	Block 1 Volumes		9,867,168		0.0901	889,032	B		280,000				0	10,147,168	914,260
82	Block 2 Volumes		27,776,298		0.0576	1,599,914	G		216,780				0	27,993,068	1,612,401
83	Block 3 Volumes		0		0.0234	0			0				0	0	0
84	260 - TRANSP (280/250 ECON DEV - OPT GS)	28	0	310.00		8,680							28	0	8,680

## Summary of Weather Normalized Margin Revenue at Present Rates - with Updated WNA factors.

Actual Twelve Months Ended February 28, 2007 and Attrition Period Twelve Months Ended October 31, 2006

Line No.	Description	12 mths Feb07		Rates effective Dec06		12mths Feb07 Weather adj Margin at Dec06 rates	Customer Changes Base Count	Customer Growth Base Count	Declining Usage Volumes Ccf	Adjusted Base Count	Adjusted Volumes Ccf	Total Adjusted Margin Rev
		Base Count	Weather Adj. Vol Ccf	Monthly Customer chg	Commodity Charge/Ccf							
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
85	Block 1 Volumes		473,690		0.0675	31,974						31,974
86	Block 2 Volumes		1,657,600		0.0432	71,608						71,608
87	Block 3 Volumes		0		0.0175	0						0
88	SPECIAL CONTRACTS	82	38,656,840			1,058,233	(22)	(20,404,673)		60	18,252,167	592,474
89												
90	Total Transportation	1,086	89,028,746			5,917,824	(7)	(20,120,853)	0	0	0	5,408,134
91												
92	TOTALS	1,607,949	231,632,338			\$45,048,348	(12)	(18,611,953)	53,923	2,898,281	(1,818,808)	\$44,803,098
93												
94	4870 - Forfeited Discount					\$1,368,814						\$1,368,814
95	4880 - Miscellaneous Service charges					175,696						175,696
96	TOTAL MARGIN REVENUES					\$46,590,858						\$46,345,808

## Heat Use/Base Use Factors

Town	Weather Station	Current		Proposed	
		Base Use CCF	Heat Use CCF/HDD	Base Use CCF	Heat Use CCF/HDD
Union City -	Paducah				
Residential		13.906292	0.156369	10.43	0.124185
Commercial		124.595029	0.453633	112.80	0.416839
Columbia, shelbyville, Franklin					
Murfreesboro	Nashville				
Residential		13.035323	0.173948	11.34	0.147091
Commercial		99.021858	0.624513	112.93	0.473009
Maryville, Morristown	Knoxville				
Residential		13.88633	0.153366	11.39	0.122329
Commercial		111.454966	0.658649	195.74	0.392082
Johnson City, Elizabethton, Kingsport, Greeneville, Bristol	Bristol				
Residential		10.696903	0.162066	11.51	0.112572
Commercial		169.773651	0.611201	125.95	0.489418