MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

CLASS COST-OF-SERVICE AND RATE DESIGN



ATMOS ENERGY CORPORATION

CASE NO. GR-2010-0192

Jefferson City, Missouri June 18, 2010

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I.

EXECUTIVE SUMMARY

Staff conducted a Class Cost-of-Service Study in this case and allocated costs to the
customer rate classes of Atmos Energy, Inc. (Atmos or Company) for each of its three
operating regions—Northeast Missouri (NEMO), Southeast Missouri (SEMO), and West
Missouri (WEMO). At this time, Staff recommends no shift of cost between the classes.

6 Staff proposes the Company continue its Straight Fixed Variable (SFV) rate design for 7 the Residential and Small Firm General Service (SGS) classes. Staff recommends the 8 Medium Firm General Service (MGS), Large Firm General Service (LGS), Interruptible 9 Large Volume Gas Service, and Transportation Service customer classes continue to use the 10 current rate design in place for these classes. Staff also supports the Company's 11 reclassification of its customers based upon meter type.

Finally, Staff opposes allowing the Company to recover a portion of bad debts through the Purchased Gas Adjustment (PGA) clause, and also opposes allowing the Company the discretion to zero out a de minimus Actual Cost Adjustment (ACA) balance or to leave the currently effective ACA factor to remain in effect.

Staff credentials and work history are attached, except for those witnesses who have
previously filed in the May 10, 2010 Cost of Service Report filing. Schedules supporting
Staff's testimony are also attached.

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II.

A.

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Fundamental Concepts of Gas Class Cost of Service

CLASS COST OF SERVICE (CCOS)

The fundamental concepts used in Staff's Class Cost-Of-Service Study (CCOS Study)
are defined as follows:

Billing Demand: the charge applicable for the costs incurred by Atmos to have
 sufficient capacity to meet the overall peak usage during that peak hour of usage, prorated to
 each particular class of service making use of some portion of those joint & common facilities
 during that peak-usage period.

5 Cost of Service: total costs, prudently incurred by a utility in providing services to its
6 customers in a particular jurisdiction.

Cost-of-Service Study: a study that begins with total company costs, adjusts those
costs in accordance with regulatory principles (annualizations and normalizations), allocates
those costs to the relevant jurisdiction, and compares the allocated costs to the revenues the
utility is generating from its retail rates, off-system sales, and other revenues.

Class Cost-of-Service Study (CCOS Study): a quantitative analysis of the costs incurred by a utility to serve its various classes of customers. The Staff's CCOS Study consists of the following steps: 1) costs are categorized (functionalized) based upon the specific role they play in the operations of a local distribution company (LDC); 2) costs are classified by whether they are customer related, demand related, or energy related; and 3) functionalized/classified costs are allocated to customer classes. The sum of all allocated costs to a customer class is called that class' cost of service.

Atmos' most unique application is that costs are reported in three (3) districts, resulting in three (3) cost studies being performed. Although the process results in different costs for each district, the process that Staff used is consistent from one district to another.

The cost of service of each customer class is compared to the annualized, normalized revenues the utility collects from each class through its rates, plus each class' allocated share of revenues from off-system sales and other revenues. The results of a CCOS Study are

expressed in terms of additional revenue required from each class for the utility to recover its
 cost of serving that class.

Relationship between Cost of Service and CCOS: conceptually, class cost-ofservice is a breakdown of cost of service. A cost of service study determines what portion of
total company costs is attributable to the retail jurisdiction; a CCOS Study determines what
portion of retail costs is attributable to each customer class.

7 Cost Allocation: a procedure by which common or joint costs are apportioned among
8 customers or classes of customers.

9 Cost Functionalization: the grouping of rate base and expense accounts according to
10 the specific function they play in the operations of a LDC. The most aggregated functional
11 categories are production, storage, transmission, distribution, and other costs.

Customer Class: a group of customers with similar characteristics (usage patterns,
conditions of service, usage levels, etc.) that are identified for the purpose of setting rates for
gas service. Customer classes for Atmos are as follows:

- 15 **Residential Firm Service** 16 Small Firm General Service 17 18 19 Medium Firm General Service 20 21 Large Service (includes Large General Firm Service, Interruptible Service and 22 Transportation) 23 24 In addition, Atmos has customized rates for some customers. 25 Rate Design: (1) a process used to determine the rates for a gas utility once total cost-26 of-service is known; (2) characteristics such as rate structure, rate values and availability that
- define a rate schedule and provide the instructions necessary to calculate a customer's gas bill.

Rate Design Study: while a CCOS Study focuses on the revenue responsibility of customer classes, a rate design study focuses on the equitable pricing of the individual customers within each class and sending the proper price signal to customers. The rate design process attempts to recover costs in each time period from each rate component for each customer in a way that equates the cost of providing service with the amount the customer is billed in accordance with the rate schedule.

Rate Schedule: one or more tariff sheets that describe the availability requirements
and prices applicable to a particular type of retail gas service. A customer class used in a
CCOS Study may consist of one or more rate schedules.

10 Rate Structure: rate structure is composed of the various types of monthly prices 11 charged for the utility's products or services. At the most basic level there are: a) charges of 12 a fixed dollar amount to be paid each month irrespective of the amount of the product taken 13 and designed to collect the costs of providing service that do not vary by customer usage; b) 14 charges of a variable monthly dollar amount that are described as a price per unit charged on 15 the total units of the product consumed over the month and that are designed to collect the 16 costs of providing service that do vary by customer usage, such as the medium and large 17 general service customers; c) purchased gas adjustment (PGA) charges, which are a "pass-18 through" of actual gas costs; and d) demand charges, a price per unit charge for gas consumed 19 over a 24-hour period of time. One criterion for setting rate structures has to do with how 20 well the structure tracks costs and reflects cost causation. Another criterion deals with the 21 ease or difficulty in administering the rate, coupled with the customers' understanding of cost causation, i.e., what factors cause the customer to incur a higher or lower monthly bill. 22

Rate Values (Rates): the per-unit prices the utility charges to provide service to its
 customers. Rates are expressed as dollars per unit of volume (Ccf, Mcf) or per unit of energy
 (MMBtu, therm), etc.

4 **Tariff**: a document filed by a regulated entity with either a federal or state 5 commission, listing the rates (prices) the regulated entity will charge to provide service to its 6 customers as well as the terms and conditions that it will follow in providing service.

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B. Units of Measurement:

Btu: British thermal unit.

9 MMBtu: one million Btus. One MMBtu is approximately the amount of energy
10 contained in 1,000 Ccf (or 1 Mcf) of natural gas, 83.3 pounds of coal, 10.917 gallons of
11 propane, 8 gallons of gasoline, or 293.083 kWh of electricity.

12 Ccf: a unit of volume of one cubic foot of natural gas, which contains approximately
13 1,000 Btus of energy.

14 Therm: 100,000 Btus of energy, approximately equal to the energy contained in 100
15 Ccf of natural gas.

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C.

General Description of the CCOS Study filed in Case No. GR-2010-0192.

The purpose of the Staff's CCOS Study is to provide the Commission with a measure of relative class cost responsibility for the overall revenue requirements of Atmos. For individual cost items, the responsibility of a certain class of customers to pay that cost can be either directly assigned or allocated to customer classes using reasonable methods for determining the class responsibility for that item of cost.

The results are then summarized so that they can be compared to revenues being collected from each class on current rates. The difference between a particular customer class' costs responsibility and the revenues generated by that customer class is the amount that class is either paying in excess of its costs (revenues greater than costs) or less than its
 costs (revenues less than costs).

The annualized usage levels and customer bill counts for the Residential Firm Service, SGS, MGS, LGS, Interruptible Large Volume Service and Transportation Service which were provided by Staff witness Jim Dittmer. The class peak demand levels for the above classes were provided by Staff witness Daniel I. Beck. All accounting information was developed using costs produced by the Commission's Auditing Department, which are based upon a testyear ending June 30, 2009, updated for known and measurable changes through February 28, 2010.

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D. Customer Classes

The Staff analyzed the costs and revenues of the above customer classes. Atmos' tariff
contains the following classes:

The Residential Firm Service class is applicable to all gas service rendered to
 residential customers, including space heating service.

The remaining four (4) classes are available to commercial or industrial customers,
including space heating service. The threshold usage requirement for each class breaks down
as follows:

<u>Class</u>	<u>Minimum Annual</u> <u>Usage</u>	<u>Maximum Annual</u> <u>Usage</u>
SGS		less than 2000 Ccf
MGS	> 2000 Ccf	< 7500 Ccf
LGS	>7500 Ccf	
	SGS MGS	UsageSGSMGS> 2000 Ccf

Interruptible Large Volume Service requires that a customer use at least 200,000 Ccf
annually, or at least 1000 Ccf per day during off-peak periods.

1	While Atmos has five (5) customer classes for tariff purposes, Staff's analysis is based
2	upon four unique classes: #1) The Residential Firm Service class, #2) SGS , #3) MGS, and
3	#4) a combined class that results from the comingling of assigned costs and revenues for the
4	LGS class, the Interruptible Large Volume Service class, plus costs and revenues assigned to $/$
5	generated by Atmos' customized rates for a limited number of customers.
6	Further, Atmos has divided its Missouri service territory into three geographic
7	districts. Each district has a unique set of monthly rates that are based on specific costs
8	applicable to each district. The districts are as follows:
9	• The West District (WEMO)
10	• The Southeast District – (SEMO)
11	• The Northeast District – (NEMO)
11	• The Northeast District (NEWO)
11	E. Functionalization
12	E. Functionalization
12 13	E. FunctionalizationThe Company's costs were first assigned on a per-district basis. Next, costs were
12 13 14	 E. Functionalization The Company's costs were first assigned on a per-district basis. Next, costs were categorized into functional areas that are to be allocated in the same way. This is referred to
12 13 14 15	E. Functionalization The Company's costs were first assigned on a per-district basis. Next, costs were categorized into functional areas that are to be allocated in the same way. This is referred to as cost functionalization. The rate base and expense accounts are assigned to one of the
12 13 14 15 16	E. Functionalization The Company's costs were first assigned on a per-district basis. Next, costs were categorized into functional areas that are to be allocated in the same way. This is referred to as cost functionalization. The rate base and expense accounts are assigned to one of the following functional categories: Storage, Distribution Mains, Distribution Measuring and
12 13 14 15 16 17	E. Functionalization The Company's costs were first assigned on a per-district basis. Next, costs were categorized into functional areas that are to be allocated in the same way. This is referred to as cost functionalization. The rate base and expense accounts are assigned to one of the following functional categories: Storage, Distribution Mains, Distribution Measuring and Regulating, Purchased Gas Related, Distribution Meters, Distribution Regulators, Distribution
12 13 14 15 16 17 18	E. Functionalization The Company's costs were first assigned on a per-district basis. Next, costs were categorized into functional areas that are to be allocated in the same way. This is referred to as cost functionalization. The rate base and expense accounts are assigned to one of the following functional categories: Storage, Distribution Mains, Distribution Measuring and Regulating, Purchased Gas Related, Distribution Meters, Distribution Regulators, Distribution Services, Customer Related, Billing, and Meter Reading. After assigning district specific

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Those costs which cannot be directly assigned to any of the above functional 23 categories are then divided among several functions based upon some relational factor. For example, it is reasonable to assume that property taxes are related to gross plant costs and can
 therefore be functionalized in the same manner as gross plant costs.

The allocation factors for Distribution Mains, as well as those for Distribution Meters, Distribution Regulators, and Distribution Service Lines were determined by using the allocation factors developed by Staff witness Daniel I. Beck. Meter Reading costs were allocated using weighted customer numbers. Revenue Related costs were allocated based upon the Staff's annualized margin revenues.

8 The process used in this case is consistent with the process Staff has used to develop 9 recommendations in other utility cases, including other Atmos cases. With the exception of 10 district-specific cost applications, Staff's cost assignment method is generally consistent with 11 the method Staff has used with other utilities to assign costs for the development of its CCOS. 12 *Staff Expert/Witness: Michael J. Ensrud*

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III. COST ALLOCATIONS

14 Allocation of Mains, Meters/Regulators and Services - The allocation factor for 15 Distribution Mains used in Staff's CCOS Study is the Company's Peak and Average 16 allocator. The Staff also developed a Stand Alone/Integrated System Mains allocator that was 17 based on system-wide data but chose to use the Peak and Average allocator because it is 18 based on district specific data. Since the Staff developed costs for the three current districts as 19 input to the CCOS Study, it is appropriate to use data to allocate the costs to the classes using 20 district specific data if there are significant differences between the districts. In this case, Staff's analysis indicates that the physical characteristics of the distribution mains for each of 21 22 the three districts (WEMO, NEMO, SEMO) are similar, but the mix of customers using the

1 mains varies between districts. By using the Company's Peak and Average allocator to 2 allocate mains, the proper mix of customers is reflected in the allocator.

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For the allocation of meters/regulators and service lines, a weighted customer allocator 4 was used. For both the meters/regulators and service lines allocators, the Residential Class is 5 assumed to have a weight of 1 and the other classes typically had values greater than or equal 6 to 1. Typical cost data from the Company's CCOS Study was used to develop the weights for 7 meters/regulators and services.

8 Peak day demands based on normal peak day weather were also used by the Staff to 9 allocate costs. For the residential, small general service and medium general service classes, 10 the peak demands were developed by Staff witness Kimberly Cox. Peak day demands for 11 each district's large customer class, which are less weather sensitive, were based on the 12 Company CCOS Study's Peak Allocator.

Staff Expert/Witness: Daniel I. Beck 13

14 IV.

WEATHER-NORMALIZED COINCIDENT PEAK DAY DEMAND

15 Staff computed weather-normalized coincident peak day demand by customer class. 16 This calculates the estimated usage per firm customer by customer class based on Staff 17 witness Manisha Lakhanpal's computed normally occurring monthly or winter season 18 (December – February) coldest days. The estimated use per customer per day is based on the 19 regression of monthly use per customer per day and monthly heating degree days (HDD). 20 The daily peak is the highest daily load or draw of natural gas on a system and the demand is the amount of natural gas used on that day. Staff's estimates of each class customers' natural 21 22 gas peak usage -- residential (Schedule KC-1), SGS (Schedule KC-2) and MGS (Schedule 23 KC-3) -- are at the time (coincident) of a utility's system daily peak.

Staff estimates weather-normalized coincident peak day class demands because these
 estimates determine the relative responsibility of the residential, SGS and MGS customers for
 that estimated single-day system peak. For cost of service studies, it is important to determine
 each class' contribution to the peak day responsibility.

5 Schedules KC-1 through KC-3 of this Report contain the estimated 6 weather-normalized coincident peak day natural gas usage in thousands of cubic feet (Mcf) 7 per customer by billing month and customer class for the WEMO District, SEMO District and 8 the NEMO District. This information was provided to Staff witness Daniel I. Beck of the 9 Commission's Energy Department, Engineering Analysis Section for his calculation of total 10 peak day demand across Atmos' general service customer classes.

11 Staff Expert/Witness: Kim Cox

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V.. RATE DESIGN

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1.. Straight Fixed Variable Rate Design and Costs of Service

Residential and Small General Service Rate Design

Atmos proposes that the current SFV rate design for Residential and SGS rate structures be continued. In the context of the LDC the SFV rate design recovers non-gas costs through a monthly fixed charge rather than the traditional rate design which uses a combination of a fixed monthly charge and a volumetric margin rate. In both SFV and traditional rate design, gas costs are recovered through the volumetric PGA charge. Staff supports the SFV rate design as it did in the previous Atmos rate case, GR-2006-0387.

The SFV rate design provides an appropriate price signal to prospective customers,
thus protecting current customers. When a new customer hooks up to the Atmos system,

there are costs involved – both immediate and long-term. As discussed above, these costs are
 not driven by the amount of gas used by the individual Residential or SGS customer.

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For example, the utility must run pipe to connect the customer to its distribution main, provide metering equipment, etc, for these customers; and this cost investment does not vary based on whether the customer plans to use gas for space heating or cooking. The smallest diameter service line and meter is sufficient to serve the load generated by existing Residential and SGS end-uses, such as space- or water-heating, gas fireplaces or barbecues, dryers, and stoves.

9 When making long-term investment decisions, the utility must take into account the 10 ability of Residential and SGS customers to change their gas consumption at any time, 11 making it impossible to predict exactly what each individual household is going to 'need' 12 from the local distribution system in the future. Furthermore, the consequences of missing the 13 mark in sizing equipment are expensive – for example, even if it was possible to exactly size a 14 main to meet expected future demand, it would be very expensive to dig up and install a new 15 main if any individual Residential or SGS customer's usage increased or decreased in the 16 future. Thus, even in the long-term, the investments that Atmos makes to serve its Residential 17 or SGS customers will not exactly reflect the amount of gas each customer uses. Many of the 18 capital investments have an expected life of over 40 years

Under a traditional volumetric rate design that bases cost recovery on an average level
of gas consumption, when a very small user pays a volumetric rate, they underpay their share
of these costs, and Residential and SGS customers using more than the average pay more than
their share. A fixed charge more accurately reflects the fixed nature of the costs Atmos incurs
to serve a Residential or SGS customer. A fixed charge sends a clear price signal to
customers who are making their energy decisions based on the costs and benefits of that

decision. It is illogical to hook up a customer who clearly will not pay their fair share of the
 true cost of service, and it is unfair to allow one customer to take service while expecting
 another Residential or SGS customer to pay for that service.

4 Residential and SGS customers' cost of service in a fixed monthly Delivery Charge is 5 an equitable and reasonable way to recover costs from the customers in these classes. SFV 6 rate design reflects the fact that a difference in the cost of serving two Residential or SGS 7 customers is not driven by the size of the customer's load; in fact, the difference between 8 individual Residential or SGS customers' annual volumes is miniscule when you consider the 9 fact that the larger customers on the Atmos system used several hundred thousand Ccf in the 10 test year, while the average Residential usage is about 700 Ccf per year. Previously the cap of 11 2,000 Ccf per year on the SGS class also ensured that the average SGS usage of about 1,000 12 Ccf per year would be well below that of the MGS and LGS Classes. The Company's 13 proposed criteria in this case is that the SGS class will consist of customers having Type A or 14 Type B meters (Type A and B meters are smaller capacity meters. See testimony of Atmos 15 witness, Mark A. Martin, filed in this case December 28, 2009). Under this proposed criteria 16 the number of customers in the SGS class will increase from about 5,200 to about 6,000 and 17 the average annual usage for an SGS customer will increase from about 1,000 Ccf per year to 18 about 1,300 Ccf per year, but will still be well below the average annual usage of the MGS 19 and LGS customers.

Staff is aware that any LDC is going to have a few Residential and SGS customers that are high usage customers in their respective classes; these are the exception, rather than the rule. These exceptions cannot be segregated when trying to design fair rates for the majority of the customers in a class. The majority of customers in the Residential class or SGS class fall within a relatively small band of usage, and Staff have not seen any evidence

1 that a difference of a few hundred Ccf per year creates a difference in the costs incurred to 2 serve these high usage customers. Said another way, the cost of serving an individual 3 Residential or SGS customer is not dependent on the amount of gas that flows through the 4 service connection. Any difference in the cost to serve any two Residential or two SGS 5 customers is more likely driven by factors other than customer size, such as distance of the 6 service connection from the service line, customer density in the area, the terrain in the 7 customer's geographical area, or the exact age and depreciated cost of the equipment serving 8 the customer. Traditionally service rates do not reflect differences in these factors.

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2. SFV and Energy Efficiency

10 The SFV rate design more closely aligns the Company's and customers' 11 interests regarding energy conservation, and enables Atmos to actively promote conservation 12 without harming its shareholders because revenues from Residential and SGS customers do 13 not depend on customer usage. Atmos had no incentive to educate or assist its customers 14 regarding conservation measures before the SFV rate design went into effect in the last Atmos 15 rate case, Case No. GR-2006-0387. At that time cost recovery and profits were directly tied 16 to the amount of natural gas customers used; so by promoting energy conservation, the 17 Company was actually harming its shareholders by lowering its ability to recover its cost of 18 service.

In the previous heating year, July 2008-June 2009, for the Atmos system, PGA
charges were estimated to be almost 80% of the average Residential customer's bill, so even
with the SFV rate design there is still ample incentive for reducing gas usage. SFV provides
utility companies with a disincentive to promote customer usage, and an incentive to promote
energy efficiency through programs to reduce natural gas use and decrease bills by decreasing

the PGA part of their bill. SFV aligns the interest of the utility company and the customers to
 increase energy efficiency.

3 Concurrent with the SFV rate design's adoption, Atmos began researching and 4 implementing energy efficiency programs for its Residential and SGS customers. These 5 energy efficiency programs are available to all Residential and SGS customers as the result of 6 a fund of 1% of non-gas revenues or about \$165,000 annually that was authorized by 7 Commission Order for this purpose in the previous rate case (See Energy Efficiency and 8 Conservation Programs in Staff's Revenue Requirement Cost of Service Report filed on June 9 4, 2010 in this case). These programs were developed with the assistance of a Collaborative 10 established for this purpose by Commission Order in the previous rate case. The programs 11 developed by the Collaborative have been coordinated with the Missouri Department of 12 Natural Resources, Energy Division and Community Action Agencies in the Atmos service 13 Thus the SFV rate design has resulted in the establishment of energy efficiency areas. 14 programs and the promotion of energy efficiency in the Atmos service area. Because of the 15 progress made with these energy efficiency programs, Staff is of the opinion that the SFV rate 16 design should be continued along with the 1% of non-gas revenues funding for energy 17 efficiency programs. The Unanimous Stipulation and Agreement in Case No. GR-2006-0387 18 established the Collaborative. Staff concurs with the Company that the Collaborative needs to 19 continue; however, Staff recommends that the expenditures be tracked in a regulatory asset 20 account. Staff believes the energy efficiency expenditure goal of 1% of non-gas revenues is 21 appropriate.

Staff concurs with the company in recommending the continuation of the SFV rate
design for Residential and Commercial customers. The SFV rate design is both fair to the

Residential and SGS customers and fair to the Company. It also provides both customers and
 the company incentives to engage in energy efficiency.

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B.

Atmos' Proposed General Service Class Restructuring

Atmos proposes that the criteria for classifying general service customers into the
existing SGS, MGS and LGS rate classes be modified from the current volumetric criteria to a
combination criteria based on meter size and annual volumes.

Currently, a customer is served in the SGS rate class if their usage does not exceed
2,000 Ccf in a year. A customer is served in the MGS rate class if their usage is greater than
2,000 Ccf per year but less than 75,000 Ccf per year. A customer is served in the LGS rate
class if their usage is greater than 75,000 Ccf annually.

The Company proposes grouping all Type A and Type B meters into the SGS rate 11 12 class and all non-Type A and non-Type B meters into the MGS and LGS Classes. Regarding 13 usage requirements for the LGS rate, an LGS customer will be one whose annual usage 14 exceeds 75,000 Ccf annually. Staff has reviewed the Company's analysis of the current and 15 proposed criteria for the general service customer classes. Staff concurs with the Company 16 that the proposed parameters for the SGS, MGS, and LGS customer classes are reasonable 17 and provide for more stability in the SGS and MGS customer class by removing the 18 volumetric criteria.

19 Staff Expert/Witness: Dr. Henry E. Warren

20 VI. BAD DEBTS THROUGH THE PGA

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A. Uncollectibles

Atmos proposes to recover uncollectible expenses in the PGA. Staff believes that uncollectibles should be recovered in base rates. This is because Staff believes that

1 uncollectibles are a margin cost, not a gas cost. The annualized uncollectible expense was 2 developed by Staff's consultant, Utilitech, Inc., in the context of this rate case.

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Sheet 42 of the Company's PGA tariffs (effective March 1, 2009) defines the items 4 that are recoverable as a cost of gas in the PGA. The fixed costs are as follows: fixed pipeline 5 transportation and storage charges, fixed gas supply charges, and fixed FERC authorized 6 charges. The commodity costs are as follows: producer gas supply commodity charges, 7 pipeline transmission and gathering commodity charges, expected costs or cost reductions to 8 be realized for the entire winter period, related storage withdrawals, gas purchases under 9 fixed-price contracts, Company's use of financial instruments (except for call options).

10

B. **ACA Balance**

The Company wants the discretion to zero out any ACA balance when it determines 11 12 that it has reached a de minimus level or allow the current ACA factor to remain in effect 13 until superseded by subsequent ACA factors calculated according to this provision (tariff 14 sheet 43).

15 When an ACA balance reaches a de minimis (small) level and the Company wishes to 16 modify that balance, there are several options for the treatment of or elimination of that 17 balance. First, the Company can file a waiver to exclude the recovery of the ACA balance; 18 second, the Company could file for a one-time bill credit or charge to its customers to 19 eliminate the ACA balance; third, the Company could combine ACA balances within a 20 service territory, such as between Rich-Hill/Hume and Butler. All of these require 21 Commission approval. Staff does not believe that the Company should have sole discretion to 22 eliminate or modify any ACA balance, regardless of the size of that balance

23 Staff Expert/Witness: Phil S. Lock

OF THE STATE OF MISSOURI

In the Matter of Atmos Energy Corporation's Tariff Revision Designed to Implement a General Rate Increase for Natural Gas Service in the Missouri Service Area of the Company.

Case No. GR-2010-0192

AFFIDAVIT OF THOMAS A. SOLT

STATE OF MISSOURI) ss) **COUNTY OF COLE**

Thomas A. Solt, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that he has participated in the preparation of the accompanying Staff Report on pages ______, and the facts therein are true and correct to the best of his knowledge and belief.

Thomas A. Sol

Subscribed and sworn to before me this 18^{+1} day of June 2010.



OF THE STATE OF MISSOURI

In the Matter of Atmos Energy Corporation's Tariff Revision Designed to Implement a General Rate Increase for Natural Gas Service in the Missouri Service Area of the Company.

Case No. GR-2010-0192

AFFIDAVIT OF MICHAEL J. ENSRUD

STATE OF MISSOURI)) ss COUNTY OF COLE)

Michael J. Ensrud, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that he has participated in the preparation of the accompanying Staff Report on pages $\frac{1-8}{2}$, and the facts therein are true and correct to the best of his knowledge and belief.

Michael J. Ensur

Subscribed and sworn to before me this $17^{4/2}$ day of June 2010.



OF THE STATE OF MISSOURI

In the Matter of Atmos Energy Corporation's Tariff Revision Designed to Implement a General Rate Increase for Natural Gas Service in the Missouri Service Area of the Company.

Case No. GR-2010-0192

AFFIDAVIT OF DANIEL I. BECK

STATE OF MISSOURI)) ss COUNTY OF COLE)

Daniel I. Beck, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that he has participated in the preparation of the accompanying Staff Report on pages g-q, and the facts therein are true and correct to the best of his knowledge and belief.

Daniel I. Beck

Subscribed and sworn to before me this $17^{4/2}$ day of June 2010.



OF THE STATE OF MISSOURI

In the Matter of Atmos Energy Corporation's Tariff Revision Designed to Implement a General Rate Increase for Natural Gas Service in the Missouri Service Area of the Company.

Case No. GR-2010-0192

AFFIDAVIT OF KIM COX

STATE OF MISSOURI)) ss COUNTY OF COLE)

Kim Cox, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that she has participated in the preparation of the accompanying Staff Report on pages $\underline{G-IO}$, and the facts therein are true and correct to the best of her knowledge and belief.

Subscribed and sworn to before me this $17^{4/2}$ day of June 2010.



Notary Public

OF THE STATE OF MISSOURI

In the Matter of Atmos Energy Corporation's Tariff Revision Designed to Implement a General Rate Increase for Natural Gas Service in the Missouri Service Area of the Company.

Case No. GR-2010-0192

AFFIDAVIT OF DR. HENRY E. WARREN

STATE OF MISSOURI)) ss COUNTY OF COLE)

Dr. Henry E. Warren, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that he has participated in the preparation of the accompanying Staff Report on pages 10 - 15, and the facts therein are true and correct to the best of his knowledge and belief.

Dr. Henry E. Warren

Subscribed and sworn to before me this $18^{\frac{1}{10}}$ day of June 2010.



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OF THE STATE OF MISSOURI

In the Matter of Atmos Energy Corporation's Tariff Revision Designed to Implement a General Rate Increase for Natural Gas Service in the Missouri Service Area of the Company.

Case No. GR-2010-0192

AFFIDAVIT OF PHIL S. LOCK

STATE OF MISSOURI)) ss COUNTY OF COLE)

Phil S. Lock, employee of the Staff of the Missouri Public Service Commission, being of lawful age and after being duly sworn, states that he has participated in the preparation of the accompanying Staff Report on pages 15-16, and the facts therein are true and correct to the best of his knowledge and belief.

Phil S. Lock

Subscribed and sworn to before me this 174 day of June 2010.



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Thomas A. Solt

Present Position:

I am an auditor in the Gas Rates and Tariffs Section of the Energy Department, Operations Division of the Missouri Public Service Commission.

Educational Background and Work Experience:

I have a Bachelor of Science degree in Business Administration from the University of Missouri—St. Louis, and a Master's degree in Public Administration from the University of Missouri--Columbia. I am a licensed certified public accountant, hold other professional certifications, and have been employed by the Missouri Public Service Commission since May, 1992, except for approximately four months in late 1997 and early 1998.

Thomas A. Solt

Education

Master's Degree in Public Administration University of Missouri—Columbia, 1999

Bachelor of Science Degree in Business Administration University of Missouri—St. Louis, 1987

Professional Certifications

Certified Government Financial Manager, November 1996 Certified Internal Auditor, August 1995 Certified Public Accountant, August 1988 Certified Flight Instructor—Instrument, Single- and Multi-engine, Airplane Commercial Pilot, Single-engine Land and Sea, Multi-engine Land, Glider

Professional Experience

Missouri Public Service Commission, Jefferson City, MO 1992-1994, Auditor, Accounting Department, 1994-1996, Energy Department 1996-1997, Policy Analyst, Federal Telecom Department 1998-1999, Auditor, Gas Department 1999-2004, Auditor, Telecom Department 2004-Present, Auditor, Energy Department Michael J. Ensrud's educational and professional experience is as follows:

I have a Bachelor of Science from Drake University. I attended the NARUC Annual Regulatory Studies Program at Michigan State University. In the regulatory field, I've worked for CompTel Missouri, and CommuniGroup, Inc., Teleconnect, TeleCom* USA, and General Telephone Company of the Midwest in the private sector. In addition, I have four-years of experience with the Iowa Public Utility Board – Iowa's equivalent to the Missouri Commission.

I have filed written testimony and have testified in several cases before Missouri Public Service Commission. Schedule 1 lists the cases where I have filed testimony (or otherwise materially participated) as a Staff witness before this Commission. (There are numerous cases going back to the mid-1980s where I filed testimony on behalf of Teleconnect (TeleCom*USA), CompTel of Missouri & CommuniGroup, Inc. - various private entities or trade associations - that are not listed). I have also testified in other jurisdictions.

Daniel I. Beck, P.E.

Supervisor of the Engineering Analysis Section of the Energy Department Utility Operations Division

Missouri Public Service Commission P.O. Box 360 Jefferson City, MO 65102

I graduated with a Bachelor of Science Degree in Industrial Engineering from the University of Missouri at Columbia. Upon graduation, I was employed by the Navy Plant Representative Office in St. Louis, Missouri as an Industrial Engineer. I began my employment at the Commission in November, 1987, in the Research and Planning Department of the Utility Division (later renamed the Economic Analysis Department of the Policy and Planning Division) where my duties consisted of weather normalization, load forecasting, integrated resource planning, cost-of-service and rate design. In December, 1997, I was transferred to the Tariffs/Rate Design Section of the Commission's Gas Department where my duties include weather normalization, annualization, tariff review, cost-of-service and rate design. Since June 2001, I have been in the Engineering Analysis Section of the Energy Department, which was created by combining the Gas and Electric Departments. I became the Supervisor of the Engineering Analysis Section, Energy Department, Utility Operations Division in November 2005.

I am a Registered Professional Engineer in the State of Missouri. My registration number is E-26953.

Phil S. Lock

I attended Central Missouri State University at Warrensburg, Missouri, and received a Bachelor of Science degree in Business Administration, with a major in Finance in May 1980 and a major in Accounting in December 1986. Since November 1996, I have been accredited as a Certified Government Financial Manager.

Prior to employment with the Commission, I was employed as a Tax Auditor with the Missouri Highway Reciprocity Commission. I also held a position as a Research Analyst with the Division of Family Services.

From 1987-1993, I conducted rate case audits under the direction of the Chief Accountant of the Commission's Accounting Department. From 1993 to the present, I have, under the direction of the Manager of Procurement Analysis, conducted audits and examinations of the books and records of gas utility companies operating within the state of Missouri.

Schedule 1 Thomas A. Solt

Company St. Joseph Light & Power Co.	Case Number ER-93-41 &	Issue Payroll, payroll taxes,
	GR-93-42	management incentive plan, 401(k) plan, advertising
Western Resources, Inc.	GR-93-240	Plant-in-service, depreciation reserve, depreciation expense, materials & supplies, prepayments, customer advances, customer deposits, property taxes, and property insurance
The Empire District Electric Co.	ER-94-174	Tariff issues
Missouri Gas Energy	GR-95-33	Recovery of FERC transition costs
Missouri Gas Energy	GR-98-140	Tariff issues
Missouri Universal Service Fund	TO-98-329	USF surcharge
Southwestern Bell Telephone Co.	TT-2000-258	Local Plus availability, ordering, and tariff approval
Southwestern Bell Telephone Co.	TT-2000-667	Local Plus
Ozark Telephone Co.	TT-2001-117 & TC-2001-402	Rate design
Relay Missouri Proceeding	TO-2003-0171	Relay surcharge
Fidelity Telephone Company	IR-2004-0272	Rate design
Atmos Energy Corporation	GR-2006-0387	Overview
Missouri Gas Energy	GR-2006-0422	Class cost of service
Union Electric Co. d/b/a AmerenUE	GR-2007-0003	Class cost of service
Laclede Gas Company	GR-2007-0208	Overview
Missouri Gas Utility	GR-2008-0060	Class cost of service

Laclede Gas Company	GT-2008-0026	Bad debts though PGA
Missouri Gas Energy	GR-2009-0355	Class cost of service
Empire District Gas Company	GR-2009-0434	Overview
Laclede Gas Company	GR-2010-0171	Miscellaneous Tariff Issues

Michael J. Ensrud

Cases that I have testified (or otherwise materially participated) in as a Staff witness:

Atmos Energy Corporation - GR-2006-0387 - Miscellaneous Rate Issues & Seasonal Reconnection Charge.

Missouri Gas Energy (a Division of Southern Union Company) - GR-2006-0422 - Miscellaneous Rate Issues & Seasonal Reconnection Charge.

AmerenUE (Union Electric Company) - GR- 2007-0003 - Miscellaneous Rate Issues & Seasonal Reconnection Charge.

Laclede Gas Company - GR-2005-0284 - Miscellaneous Rate Issues & Credit Scoring / GR - 2007-0208 - Miscellaneous Rate Issues & Credit Scoring & Rate Switching Customers

Southern Missouri Natural Gas Company (Southern Missouri Natural Gas Company) - GE-2005-0189 - Promotional Practices

Empire District Electric Company of Joplin - ER-2006-0315 - Street Lighting

Missouri Gas Utilities, Inc. (MGU) - GR-2008-0060 - Miscellaneous Rate Issues

Trigen Kansas City Energy Corporation - HR-2008-0300 - Miscellaneous Rate Issues

Union Electric Company d/b/a AmerenUE - ER-2008-0318 – Renewable Energy Certificates

Kansas City Power & Light – KCP&L Greater Missouri Operations Company ("GMO") – HR-2009-0092 – Contract Adjustment & Imputation – AG Processing (AGP) Missouri Gas Energy (a Division of Southern Union Company) - GR-2008-0355 - Miscellaneous Rate Issues & Rewrite of Transportation Tariff.

Empire District Electric Company of Joplin – GR-2009-0434 - Miscellaneous Rate Issues & Rewrite of Transportation Tariff.

Laclede Gas Company – GR-2010-0171 – Lowering the threshold for Transport Service – Need for telemetry.

List of Cases in which prepared testimony was presented by: DANIEL I. BECK

<u>Company Name</u>	<u>Case No.</u>
Union Electric Company	EO-87-175
The Empire District Electric Company	EO-91-74
Missouri Public Service	ER-93-37
St. Joseph Power & Light Company	ER-93-41
The Empire District Electric Company	ER-94-174
Union Electric Company	EM-96-149
Laclede Gas Company	GR-96-193
Missouri Gas Energy	GR-96-285
Kansas City Power & Light Company	ET-97-113
Associated Natural Gas Company	GR-97-272
Union Electric Company	GR-97-393
Missouri Gas Energy	GR-98-140
Missouri Gas Energy	GT-98-237
Ozark Natural Gas Company, Inc.	GA-98-227
Laclede Gas Company	GR-98-374
St. Joseph Power & Light Company	GR-99-246
Laclede Gas Company	GR-99-315
Utilicorp United Inc. & St. Joseph Light & Power Co.	EM-2000-292
Union Electric Company d/b/a AmerenUE	GR-2000-512
Missouri Gas Energy	GR-2001-292
Laclede Gas Company	GR-2001-629
Union Electric Company d/b/a AmerenUE	GT-2002-70
Laclede Gas Company	GR-2001-629
Laclede Gas Company	GR-2002-356
Union Electric Company d/b/a AmerenUE	GR-2003-0517
Missouri Gas Energy	GR-2004-0209
Atmos Energy Corporation	GR-2006-0387
Missouri Gas Energy	GR-2006-0422
Union Electric Company d/b/a AmerenUE	GR-2007-0003
The Empire District Electric Company EO-2007-002	9/EE-2007-0030
Laclede Gas Company	GR-2007-0208
The Empire District Electric Company	EO-2008-0043
Missouri Gas Utility, Inc.	GR-2008-0060
The Empire District Electric Company	ER-2008-0093
Union Electric Company d/b/a AmerenUE	ER-2008-0318
Kansas City Power & Light Company	ER-2009-0089
KCP&L Greater Missouri Operations Company	ER-2009-0090

Missouri Gas Energy	GR-2009-0355
Union Electric Company d/b/a AmerenUE	ER-2010-0036
Laclede Gas Company	GR-2010-0171

SUMMARY OF TESTIMONY

PHIL S. LOCK

COMPANY NAME	CASE NUMBER	ISSUES
Grand River Mutual Telephone	TR-87-25	Cash Working Capital
Kansas Power and Light Company	GR-89-48	Lost & Unaccounted for Gas
St. Joe Light and Power Company	GR-90-84	PGA Costs
Associated Natural Gas Company	GR-90-152	Revenues, Gas Costs, Bad Debts
United Cities Gas Company	GR-92-21	Take-or-Pay Refunds
Laclede Gas Company	GR-92-165	Weather Normalization, Customer Annualization, Unbilled Revenue, Postage & Card Stock Expense, Uncollectible Accounts, E&D Expense, Gas Expense
United Cities Gas Company	GR-93-47	Revenues, Gas Costs, Uncollectible Expense, Postage Expense, Customer Bypass
Laclede Gas Company	GR-93-149	Transportation within Contract Demand
Laclede Gas Company	GR-94-328	Capacity Reservation Charges
Missouri Public Service	GR-95-273	Capacity Release
Missouri Public Service	GA-97-132	Establish Optimal Gas Cost and Transportation Level
Missouri Public Service	GR-99-435	Put and Call Transactions
Greeley Gas Company	GR-2001-394	Purchasing Practices
Atmos Energy	GR-2001-396	Agency fees, overrun gas, storage, purchasing practices
Aquila Networks D/B/A Missouri Public Service	GR-2001-461	Purchasing Practices, Deferred Carrying Cost Balance, Puts/Calls
Gateway Pipeline Company	GM-2001-585	PGA Costs
Aquila Networks D/B/A Missouri Public Service & L&P	GR-2004-0072	Gas Storage Inventory

Atmos Energy	GR-2006-0387	Gas Storage Inventory, Uncollectible Expense in PGA and Gas cost tariff change
Empire District Gas	GR-2009-0434	Staff Report (Direct) Gas Storage Inventory

	Atmos Energy Corporation - SEMO Rate District	1 - SEMO Rate Distr	ict		
	Test Year Ending June 30, 2009 Upd	30, 2009 Updated Through February 28,	lary 28, 2010		
			CMALL	MEDTIM	
			GENERAL	GENERAL	LARGE
	TOTAL	RESIDENTIAL	SERVICE	SERVICE	-
RATE BASE	\$29,680,019	\$18,354,642	\$4,324,583	\$3,751,523	\$3,249,271
REQUESTED RETURN	\$0	8.0610%	8.0610%	8.0610%	8.0610%
DETLIDN ON DATE BASE	407 202 23	\$1.479.560	\$348.603	\$302.409	\$261.922
	4510051101	00010 11/14		and least	andraat
O & M EXPENSES	\$4,666,019	\$2,955,972	\$716,592	\$577,860	\$415,595
DEPRECIATION EXPENSE	\$1,620,289	\$1,082,895	\$215,851	\$164,842	\$156,700
TAXES OTHER THAN INCOME	\$792,857	\$478,449	\$114,685	\$100,995	\$98,728
INCOME TAXES	\$865,995	\$535,547		\$109,461	\$94,806
	=======================================				
TOTAL EXPENSES	\$7,945,160	\$5,052,863	\$1,173,310	\$953,158	\$765,829
	110 001 CLL	*C 200 404	44 E34 043	41 JEE EEC	*1 037 7E1
T01AL C-0-S	CC0'/CC'01¢	474'70C'0¢	CT6'T7C'T¢	000000714	TC/1/70/T¢
OTHER REVENUES	\$192,564	\$107,388	\$25,019	\$20,641	\$39,516
REQUIRED MARGIN REVENUE	\$10,145,091	\$6,425,036	\$1,496,894	\$1,234,926	\$988,235
CURRENT MARGIN REVENUES	\$8,161,171	\$4,851,565	\$604,135	\$1,400,890	\$1,304,581
AVERAGE GAS REVENUES	\$0	\$0	\$0	\$0	\$0
ZERO REVENUE INCREASE PLUG	(\$1,983,920)	(\$1,256,446)	(\$292,725)	(\$241,495)	(\$193,254)
	10 464 434	41 4 CO 100	41 204 160	007 0004	+704 001
C-O-S MARGIN REVENUES @ 0%	\$8,101,1/1	DEC'DOT'C¢	407'TC	004/0664	106'46/4
AVERAGE GAS COSTS	\$0	\$0	\$0	\$0	\$0
REVENUE INCREASE AT	\$0	\$0	\$0	\$0	\$0
REVENUE ABOVE (BELOW) COS	\$0	(\$317,025)	(\$600,034)	\$407,460	\$509,600
% INCREASE WITHOUT GAS COSTS	0.00%	6.53%	99.32%	-29.09%	-39.06%

Schedule MJE-1

Atmos Energy	Atmos Energy Corporation - NEMO Rate District	e District			
Ca Test Year Ending June 30	CASE NO. GK-ZUTU-0192 ear Ending June 30. 2009 Undated Through February 28. 2010	February 28. 2010			
			SMALL	MEDIUM	
			GENERAL	GENERAL	LARGE
	TOTAL	RESIDENTIAL	SERVICE	SERVICE	VOLUME
			-		
RATE BASE	\$27,429,409	\$16,607,081	\$4,764,296	\$4,050,767	\$2,007,265
REQUESTED RETURN	\$0	8.0610%	8.0610%	8.0610%	8.0610%
		100 000	010 010	+03 2004	4164 DOF
RETURN ON RATE BASE	\$2,211,075	\$1,338,691	\$384,048	\$320,031	CU8,101\$
O & M EXDENCES	\$3.245.053	\$2.023.622	\$582,515	\$475,256	\$163,660
DEPRECIATION EXPENSE	\$1,917,043	\$1,204,787	\$331,385	\$268,017	\$112,854
TAXES OTHER THAN INCOME	\$715,893	\$427,454	\$130,804	\$112,614	\$45,021
INCOME TAXES	\$804,626	\$487,159	\$139,758	\$118,827	\$58,882
				===========	=======
TOTAL EXPENSES	\$6,682,615	\$4,143,021	\$1,184,462	\$974,714	\$380,417
TOTAL C-O-S	\$8,893,689	\$5,481,712	\$1,568,510	\$1,301,245	\$542,222
			007 007	010 011	
OTHER REVENUES	\$166,500	\$/1,415	\$20,438	\$10,943	\$01,1C\$
					011 1011
REQUIRED MARGIN REVENUE	\$8,727,189	\$5,410,297	\$1,548,072	\$1,284,302	\$484,518
			017 0714	LTO LOOT	TOP CLUT
CURRENT MARGIN REVENUES	\$6,236,996	\$4,086,221	\$510,159	\$987,915	\$652,701
AVERAGE GAS REVENUES	\$0	\$0	\$0	\$0	\$0
ZERO REVENUE INCREASE PLUG	(\$2,490,193)	(\$1,543,760)	(\$441,723)	(\$366,459)	(\$138,251)
C-O-S MARGIN REVENUES @ 0%	\$6,236,996	\$3,866,537	\$1,106,349	\$917,843	\$346,267
		04	04	40	40
AVERAGE GAS COSTS	0	D#	Dŧ	D¢.	D¢
REVENUE INCREASE AT	\$0	\$0	\$0	\$0	\$0
REVENUE ABOVE (BELOW) COS	\$0	\$219,684	(\$596,190)	\$70,072	\$306,434
% TNCRFASE WITHOUT GAS COSTS	0.00%	-5.38%	116.86%	-7.09%	-46.95%

Schedule MJE-2

	Atmos Energy Corporation - WEMO Rate District CASE NO. GR-2010-0192	EMO Rate District			
Test Year	Ending June	30, 2009 Updated Through February 28, 2010	28, 2010		
			SMALL	MEDIUM	
			GENERAL	GENERAL	LARGE
	TOTAL	RESIDENTIAL	SERVICE	SERVICE	VOLUME
			•		
RATE BASE	\$4,498,125	\$3,050,812	\$781,420	\$482,672	\$183,222
REQUESTED RETURN	8.06%	8.0610%	8.0610%	8.0610%	8.0610%
DETUDU ON DATE DACE	CO3 C2C+	474E 07E	000 004	000 004	#11 7CO
KEIUKN UN KAIE BASE	\$302,292	C76'C47¢	066'70\$	006'00¢	£01/17¢
O & M EXPENSES	\$631.853	\$450.669	\$111.297	\$63,442	\$6,445
DEPRECIATION EXPENSE	\$259,525	\$188,092	\$42,269	\$20,800	\$8,364
TAXES OTHER THAN INCOME	\$131,448	\$88,720	\$23,323	\$14,166	\$5,239
INCOME TAXES	\$131,385	\$89,111	\$22,824	\$14,098	\$5,352
				Ï	
TOTAL EXPENSES	\$1,154,211	\$816,592	\$199,713	\$112,506	\$25,399
TOTAL C-O-S	\$1,516,803	\$1,062,517	\$262,703	\$151,414	\$40,169
OTHER REVENUES	\$25,741	\$14,645	\$3,621	\$2,087	\$5,389
REQUIRED MARGIN REVENUE	\$1,491,062	\$1,047,872	\$259,082	\$149,327	\$34,780
CURRENT MARGIN REVENUES	\$1,153,350	\$791,792	\$117,182	\$115,124	\$129,252
AVERAGE GAS REVENUES	\$0	\$0	\$0	\$0	\$0
ZERO REVENUE INCREASE PLUG	(\$337.712)	(\$237,334)	(\$58,680)	(\$33,821)	(\$7,877)
C-O-S MARGIN REVENUES @ 0%	\$1,153,350	\$810,539	\$200,403	\$115,506	\$26,903
AVERAGE GAS COSTS	\$0	\$0	\$0	\$0	\$0
DEVIENTIE TN/CDEACE AT	¢U	¢U	¢U	¢U	\$0
	2	2	2	2	
REVENUE ABOVE (BELOW) COS	\$0	(\$18,747)	(\$83,221)	(\$382)	\$102,349
% INCREASE WITHOUT GAS COSTS	\$0	2.37%	71.02%	0.33%	0.00%

Schedule MJE-3

ATMOS GAS CASE NO. GR-2010-0192 RESIDENTIAL COINCIDENT PEAK DAY DEMAND ESTIMATE

WEMO

	156	189	780	1,245	1,948	2,839	2,832	2,701	2,120	1,408	805	345	2,855
CUSTOMERS Mcf/DAY	3,400	3,352	3,366	3,381	3,423	3,502	3,526	3,538	3,563	3,535	3,444	3,381	3,522
	0.0458	0.0563	0.2318	0.3683	0.5692	0.8107	0.8032	0.7634	0.5951	0.3984	0.2336	0.1020	0.8107
	0.82	1.73	16.83	28.57	45.86	66.63	65.99	62.57	48.08	31.17	16.98	5.66	66.63
MONIH	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	ANNUAL

SEMO

	Coincident F	eak Day D	Coincident Peak Day Demand Estimate	
MONTH	MAX HDD	Mcf/C/D	CUSTOMERS	Mcf/DAY
JuL	0.10	0.0291	28,726	837
Aug	0.72	0.0364	28,534	1,040
Sep	12.92	0.1817	28,495	5,177
Oct	24.88	0.3239	28,657	9,283
Νον	38.20	0.4825	29,138	14,060
Dec	55.68	0.6905	29,588	20,430
Jan	60.17	0.7439	29,734	22,120
Feb	53.46	0.6641	29,789	19,783
Mar	40.68	0.5120	30,074	15,397
Apr	26.84	0.3473	30,084	10,449
May	20.07	0.2668	29,304	7,818
Jun	2.88	0.0622	28,818	1,793
ANNUAL	60.17	0.7439	29,704	22,097

NEMO

	Coincident F	eak Day D	Coincident Peak Day Demand Estimate	
MONTH	MAX HDD	Mcf/C/D	CUSTOMERS	Mcf/DAY
JuL	2.06	0.0398	16,242	647
Aug	4.13	0.0639	16,162	1,033
Sep	18.58	0.2319	16,157	3,746
Oct	31.45	0.3815	16,177	6,171
Nov	49.76	0.5942	16,755	9,956
Dec	67.89	0.8050	16,940	13,637
Jan	69.76	0.8267	16,986	14,043
Feb	66.59	0.7899	17,046	13,464
Mar	51.27	0.6118	17,131	10,481
Apr	35.77	0.4316	17,095	7,379
May	20.29	0.2518	16,818	4,235
Jun	8.53	0.1151	16,339	1,881
ANNUAL	69.76	0.8267	16,991	14,047

ATMOS GAS CASE NO. GR-2010-0192 SMALL FIRM GENERAL SERVICE COINCIDENT PEAK DAY DEMAND ESTIMATE

WEMO

	Coincident F	^o eak Day D	Coincident Peak Day Demand Estimate	
MONTH	DAH XAM	Mcf/C/D	CUSTOMERS	Mcf/DAY
	0.82	0.0368	500	18
	1.73	0.0584	499	29
	16.83	0.4177	487	203
	28.57	0.6974	489	341
	45.86	1.1088	506	561
	66.63	1.6034	512	821
	65.99	1.5881	520	826
	62.57	1.5066	525	791
	48.08	1.1618	523	608
	31.17	0.7591	521	395
	16.98	0.4215	509	215
	5.66	0.1520	500	76
ANNUAL	66.63	1.6034	519	832

SEMO

	Coincident F	^o eak Day D	Coincident Peak Day Demand Estimate	
MONTH	MAX HDD	Mcf/C/D	CUSTOMERS	Mcf/DAY
Jul	0.10	0.0453	3,435	156
Aug	0.72	0.0598	3,424	205
Sep	12.92	0.3468	3,397	1,178
Oct	24.88	0.6279	3,398	2,133
Nov	38.20	0.9413	3,430	3,229
Dec	55.68	1.3521	3,483	4,710
Jan	60.17	1.4577	3,484	5,079
Feb	53.46	1.3000	3,479	4,523
Mar	40.68	0.9994	3,494	3,492
Apr	26.84	0.6741	3,484	2,349
May	20.07	0.5149	3,441	1,772
Jun	2.88	0.1107	3,406	377
ANNUAL	60.17	1.4577	3,482	5,076

NEMO

	Coincident F	eak Day D	Coincident Peak Day Demand Estimate	
MONTH	MAX HDD	Mcf/C/D	CUSTOMERS	Mcf/DAY
Jul	2.06	0.0712	2,063	147
Aug	4.13	0.1195	2,054	246
Sep	18.58	0.4569	2,040	932
Oct	31.45	0.7574	2,037	1,543
Nov	49.76	1.1847	2,116	2,507
Dec	67.89	1.6080	2,131	3,427
Jan	69.76	1.6517	2,121	3,503
Feb	66.59	1.5776	2,144	3,382
Mar	51.27	1.2200	2,134	2,604
Apr	35.77	0.8581	2,127	1,825
May	20.29	0.4969	2,092	1,040
Jun	8.53	0.2224	2,047	455
ANNUAL	69.76	1.6517	2,132	3,521

ATMOS GAS CASE NO. GR-2010-0192 MEDIUM FIRM GENERAL SERVICE COINCIDENT PEAK DAY DEMAND ESTIMATE

WEMO

	Coincident F	eak Day D	Coincident Peak Day Demand Estimate	
MONTH	MAX HDD	Mcf/C/D	CUSTOMERS	Mcf/DAY
Jul	0.82	0.9333	45	42
Aug	1.73	1.0585	46	49
Q	16.83	3.1402	45	141
÷	28.57	4.7606	45	214
Nov	45.86	7.1443	47	336
с	66.63	10.0096	47	470
Jan	65.99	9.9210	46	456
Feb	62.57	9.4488	45	425
Mar	48.08	7.4514	45	335
Apr	31.17	5.1180	46	235
May	16.98	3.1621	46	145
Jun	5.66	1.6005	47	75
ANNUAL	66.63	10.0096	97	460

SEMO

MONTH MAX HDD Jul 0.10 Aug 0.72 Sep 12.92 Oct 24.88 Nov 38.20	HDD 0.10 0.72 12.92 24.88	Mcf/C/D 0.8464 0.9357 2.7094	CUSTOMERS	Mcf/DAY
- 7 C L	0.10 0.72 2.92 2.98	0.8464 0.9357 2.7094	554	
	0.72 2.92 4.88	0.9357 2.7094		469
	2.92	2.7094	527	493
	4.88		537	1,455
		4.4463	532	2,365
	38.20	6.3830	531	3,389
	55.68	8.9221	541	4,827
Jan 6	60.17	9.5746	527	5,046
Feb 5	53.46	8.5998	557	4,790
Mar 4	40.68	6.7425	538	3,627
Apr 2	26.84	4.7320	546	2,584
May 2	20.07	3.7482	529	1,983
Jun	2.88	1.2505	526	658
ANNUAL 6	60.17	9.5746	542	5,186

NEMO

	Coincident I	Peak Day D	Coincident Peak Day Demand Estimate	
MONTH	MAX HDD	Mcf/C/D	CUSTOMERS	Mcf/DAY
Jul	2.06	1.3424	338	454
Aug	4.13	1.6761	323	541
Sep	18.58	4.0065	329	1,318
Oct	31.45	6.0815	319	1,940
Nov	49.76	9.0334	340	3,071
Dec	67.89	11.9570	329	3,934
Jan	69.76	12.2586	335	4,107
Feb	66.59	11.7473	329	3,865
Mar	51.27	9.2772	327	3,034
Apr	35.77	6.7775	325	2,203
May	20.29	4.2828	330	1,413
Jun	8.53	2.3865	316	754
ANNUAL	69.76	12.2586	331	4,058