

**BEFORE THE
KENTUCKY PUBLIC SERVICE COMMISSION**

**APPLICATION FOR AN ADJUSTMENT)
OF RATES AND TARIFF MODIFICATIONS) CASE NO. 2013-00148
OF ATMOS ENERGY CORPORATION,)
KENTUCKY DIVISION)**

PUBLIC VERSION

DIRECT TESTIMONY AND SCHEDULES

OF

GLENN A. WATKINS

ON BEHALF OF THE

KENTUCKY OFFICE OF THE ATTORNEY GENERAL

OCTOBER 9, 2013

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1 **I. INTRODUCTION**

2
3 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

4 A. My name is Glenn A. Watkins. My business address is 9030 Stony Point
5 Parkway, Suite 580, Richmond, VA 23235.

6
7 **Q. WHAT IS YOUR PROFESSIONAL AND EDUCATIONAL BACKGROUND?**

8 A. I am a Principal and Senior Economist with Technical Associates, Inc., which is
9 an economics and financial consulting firm with offices in Richmond, Virginia. Except
10 for a six month period during 1987 in which I was employed by Old Dominion Electric
11 Cooperative, as its forecasting and rate economist, I have been employed by Technical
12 Associates continuously since 1980.

13 During my career at Technical Associates, I have conducted marginal and
14 embedded cost of service, rate design, cost of capital, revenue requirement, and load
15 forecasting studies involving numerous electric, gas, water/wastewater, and telephone
16 utilities, and have provided expert testimony in Alabama, Arizona, Delaware, Georgia,
17 Illinois, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, New Jersey,
18 North Carolina, Ohio, Pennsylvania, Vermont, Virginia, South Carolina, Washington,
19 and West Virginia. A more complete description of my education and experience as well
20 as a list of my prior testimonies is provided in my Schedule GAW-1.

21
22 **Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY BEFORE THE**
23 **KENTUCKY PUBLIC SERVICE COMMISSION?**

1 A. Yes. I have provided testimony concerning class cost of service and rate design
2 in several rate cases before this Commission including various cases filed by Columbia
3 Gas of Kentucky, Louisville Gas & Electric, Kentucky Utilities, Duke Energy, Blue
4 Grass Electric Cooperative, and Owen Electric Cooperative.

5
6 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

7 A. Technical Associates, Inc. has been retained by the Kentucky Office of the
8 Attorney General (“AG”) to evaluate the reasonableness of Atmos Energy Corporation,
9 Kentucky Division (“Atmos” or “Company”) natural gas class cost of service study and
10 proposed distribution of revenues. The purpose of my direct testimony is to provide
11 comments regarding my analysis of the Company’s proposals and to present my findings
12 and recommendations based on the studies I have undertaken in this matter.

13
14 **II. CLASS COST OF SERVICE**

15
16 **A. Concepts and Methods**

17
18 **Q. PLEASE BRIEFLY EXPLAIN THE CONCEPT OF A CLASS COST OF**
19 **SERVICE STUDY (“CCOSS”) AND ITS PURPOSE IN A RATE PROCEEDING.**

20 A. Generally there are two types of cost of service studies used in public utility
21 ratemaking: marginal cost studies and embedded, or fully allocated, cost studies.
22 Consistent with the practices of this Commission, Atmos has utilized a traditional

1 embedded cost of service study for purposes of establishing the overall revenue
2 requirement in this case, as well as for class cost of service purposes.

3 Embedded class cost of service studies are also referred to as fully allocated cost
4 studies because the majority of a public utility's plant investment and expense is incurred
5 to serve all customers in a joint manner. Accordingly, most costs cannot be specifically
6 attributed to a particular customer or group of customers. To the extent that certain costs
7 can be specifically attributed to a particular customer or group of customers, these costs
8 are directly assigned in the CCOSS. The costs are jointly incurred to serve all or most
9 customers; therefore, they must be allocated across specific customers or customer rate
10 classes.

11 It is generally accepted that to the extent possible, joint costs should be allocated
12 to customer classes based on the concept of cost causation. That is, costs are allocated to
13 customer classes based on analyses that measure the causes of the incurrence of costs to
14 the utility. Although the cost analyst strives to abide by this concept to the greatest
15 extent practical, some categories of costs, such as corporate overhead costs, cannot be
16 attributed to specific exogenous measures or factors, and must be subjectively assigned
17 or allocated to customer rate classes. With regard to those costs in which cost causation
18 can be attributed, there is often disagreement among cost of service experts on what is an
19 appropriate cost causation measure or factor; e.g., peak demand, energy or throughput
20 usage, number of customers, etc.

21
22 **Q. IN YOUR OPINION, HOW SHOULD THE RESULTS OF A CCOSS BE**
23 **UTILIZED IN THE RATEMAKING PROCESS?**

1 A. Although there are certain principles used by all cost of service analysts, there are
2 often significant disagreements on the specific factors that drive individual costs. These
3 disagreements can and do arise as a result of the quality of data and level of detail
4 available from financial records. There are also fundamental differences in opinions
5 regarding the cost causation factors that should be considered to properly allocate costs
6 to rate schedules or customer classes. Furthermore, and as mentioned previously, cost
7 causation factors cannot be realistically ascribed to some costs such that subjective
8 decisions are required.

9 In these regards, two different cost studies conducted for the same utility and time
10 period can, and often do, yield different results. As such, regulators should consider
11 CCOSS only as a guide, with the results being used as one of many tools to assign class
12 revenue responsibility.

13
14 **Q. HAVE THE HIGHER COURTS OPINED ON THE USEFULNESS OF COST**
15 **ALLOCATIONS FOR PURPOSES OF ESTABLISHING REVENUE**
16 **RESPONSIBILITY AND RATES?**

17 A. Yes. In an important regulatory case involving Colorado Interstate Gas Company
18 and the Federal Power Commission (predecessor to FERC), the United States Supreme
19 Court stated:

20 "But where as here several classes of services have a common use
21 of the same property, difficulties of separation are obvious.
22 Allocation of costs is not a matter for the slide-rule. It involves
23 judgment on a myriad of facts. It has no claim to an exact
24 science."¹
25

¹ 324 U.S. 581, 65 S. Ct. 829.

1 **Q. DOES YOUR OPINION, AND THE FINDINGS OF THE U.S. SUPREME**
2 **COURT, IMPLY THAT COST ALLOCATIONS SHOULD PLAY NO ROLE IN**
3 **THE RATEMAKING PROCESS?**

4 A. Not at all. It simply means that regulators should consider the fact that cost
5 allocation results are not surgically precise and that alternative, yet equally defensible,
6 approaches may produce significantly different results. In this regard, when all cost
7 allocation approaches consistently show that certain classes are over or under
8 contributing to costs and/or profits, there is a strong rationale for assigning smaller or
9 greater percentage rate increases to these classes. On the other hand, if one set of cost
10 allocation approaches show dramatically different results than another approach, caution
11 should be exercised in assigning disproportionately larger or smaller percentage increases
12 to the classes in question.

13
14 **Q. PLEASE EXPLAIN THE BASIC CONCEPTS OF COST ALLOCATION FOR**
15 **PUBLIC UTILITIES AND NATURAL GAS LOCAL DISTRIBUTION**
16 **COMPANIES (“LDCs”).**

17 A. As I mentioned earlier, the majority of a LDCs’ plant investment serves
18 customers in a joint manner. In this regard, the LDC’s infrastructure is a system
19 benefiting all customers. If all customers were the same size and had identical usage
20 characteristics, cost allocation would be simple (even unnecessary). However, in reality,
21 a utility’s customer base is not so simple. Customers (or customer groups) tend to vary
22 greatly in the amount of service required throughout the year such that there are small
23 usage and large usage customers. Therefore, differences in usage should be considered.

1 Because different groups of customers also utilize the system at varying degrees during
2 the year, consideration should also be given to the demands placed on the system during
3 peak usage periods.
4

5 **Q. WITH REGARD TO UTILITIES GENERALLY, AND NATURAL GAS LDC'S**
6 **SPECIFICALLY, ARE THERE A COMMON SET OF EXTERNAL FACTORS,**
7 **OR DRIVERS, USED IN VIRTUALLY EVERY CCROSS?**

8 A. Virtually every utility cost allocation study rests on the analysts' selection of three
9 primary external (exogenous) allocation factors: number of customers; peak demand;
10 and, annual (average day) usage.² From these three exogenous factors, a host of
11 internally generated allocation factors are developed based on previously allocated plant
12 and expenses. In this regard, it is important to understand that the relative relationship
13 across classes between these external allocators can be dramatically different.
14

15 **Q. WITH RESPECT TO ATMOS, WHAT ARE THE RELATIVE CLASS**
16 **RELATIONSHIPS OF THESE THREE PRIMARY ALLOCATION FACTORS?**

17 A. The following table shows the relative amounts (percentages) of the three primary
18 external allocation factors using the Company's class definitions:
19
20
21
22
23

² It should be noted that "weighted" customer counts are often used for certain plant and expense accounts.

TABLE 1

Allocation Factor	Class			
	Resid.	Commercial/ Public Authority	Firm Ind.	Interrupt./ Transport.
Customers	88.85%	10.91%	0.12%	0.12%
Annual MCF	22.78%	12.71%	1.11%	63.40%
Peak Demand (Design Day)	42.79%	19.23%	1.73%	36.25%

As can be seen above, there is a vast difference in the relativities of these external allocation factors, such that the selection of a particular allocator will significantly affect the assignment of costs across the classes.

Q. WITH REGARD TO NATURAL GAS LDCs, ARE THERE ANY ASPECTS OF CLASS COST ALLOCATIONS THAT TEND TO OVERSHADOW OTHER ISSUES OR IS OFTEN CONTROVERSIAL?

A. Yes, there are two areas of cost allocation that tend to overshadow all other issues. First, for virtually every natural gas LDC, the largest single rate base item (account) is distribution mains such that the methodology employed and selection of external allocators for this account (Account 376) has a profound impact on the ultimate calculated class rates of return ("ROR"). Furthermore, several other rate base and operating income accounts are typically allocated to classes based on the previous assignment of distribution mains. The second overshadowing issue concerns the allocation of administrative and general expenses. This is particularly evident in situations such as is the case for Atmos wherein corporate overhead and/or service company expenses are assigned to the local LDC. This is because the vast majority of

1 these allocated affiliate costs are booked to the LDC's administrative and general
2 expense accounts.

3
4 **Q. BEFORE YOU DISCUSS THE VARIOUS METHODS AND APPROACHES**
5 **USED TO ALLOCATE MAINS, ARE THERE ANY MEASUREMENT**
6 **CONCEPTS THAT ARE CRITICAL TO FULLY UNDERSTAND?**

7 A. Yes. Most public utility costing studies consider some form of peak demand. For
8 natural gas LDC's, peak demand is usually expressed on a peak day basis. However,
9 there are several concepts and definitions relating to peak day demand that should clearly
10 be understood. The first set of concepts and definitions concern actual and potential
11 (theoretical) peak day demands. Actual peak day demands are just that: the actual
12 maximum demands measured (or estimated) over some pre-defined period; e.g., a test
13 year. Potential, or theoretical, peak day demands are referred to as "design day"
14 demands and reflect the estimated demands on the coldest day realistically possible for a
15 particular geographic service area.³

16 The next set of definitional "peak day demands" relates to the timing, or
17 "coincidence" of demands, between various user groups or classes. Class coincident
18 peak demands are defined as class usage on the day of the system peak (whether on an
19 actual or design day basis). Class non-coincident peak day demands relate to each
20 class's peak day usage, regardless of when the entire system peaks. Because of the
21 highly weather sensitive nature of total LDC systems, class coincident and non-

³ Residential and commercial natural gas usage tends to be extremely weather sensitive, while industrial usage may or may not be weather sensitive depending on the use of gas by these customers for space heating and industrial processes.

1 coincident peak day demands are usually on the same day for the residential and
2 commercial classes. For some LDC's, the industrial non-coincident peak day demand
3 may not coincide with the system (coincident) peak day usage depending on scheduling
4 and production outputs of these industrial customers.

5
6 **Q. WHAT METHODS ARE COMMONLY USED TO ALLOCATE NATURAL GAS**
7 **DISTRIBUTION MAINS?**

8 A. While a myriad of cost allocation methods and approaches have been developed,
9 three (3) *methods* predominate in the natural gas LDC industry: "peak responsibility,"
10 "Peak and Average" or "Demand/Commodity," and "Customer/Demand," which I will
11 address shortly in more detail. These methods differ in the criteria used to allocate
12 mains, as cost allocation analysts do not universally agree on the cost causative factors or
13 drivers influencing mains investments. There are three (3) *criteria* generally considered
14 when *selecting* a mains cost allocation method: peak demand (whether coincident, non-
15 coincident, actual, or design day); annual (average day) usage; and, number of customers.
16 Because a LDC system must be capable of supplying gas to its firm customers during
17 peak demand periods (i.e., on very cold days), relative class peak day demands are often
18 considered a good proxy for measuring the cost causation of mains investment.⁴ Annual
19 (or average day) throughput is also often used to allocate mains as this factor reflects the
20 utilization of a utility's mains investment. Number of customers is also sometimes
21 considered when allocating mains. That is, customer counts by class serve as a basis for

⁴ Embedded cost allocations are directly only concerned with relative, not absolute, criteria. That is, because embedded cost allocations reflect nothing more than dividing total system costs between classes, it is the relative (percentage) contributors to total system amounts that are relevant.

1 allocation mains. Even though annual levels of usage and peak load requirements vary
2 greatly between customer classes (residential versus large industrial), some analysts are
3 of the opinion that customer counts should be considered because at least some
4 infrastructure investment in mains is required simply to “connect” every customer to the
5 system. With these three criteria identified, various methods weight and utilize these
6 criteria differently within the cost allocation process. In other words, some methods rely
7 on only one criterion while others consider two or more criteria with varying weights
8 given to each factor utilized.

9 The three most common natural gas LDC cost allocation methods are: the “peak
10 responsibility” method (whether coincident or class non-coincident) in which peak day
11 demands are the only factor utilized to allocate mains; the “Peak and Average” or
12 “Demand/Commodity” approach in which both peak day and annual (average day)
13 throughput is reflected within the allocation of mains;⁵ and the Customer/Demand
14 method that utilizes a combination of peak day demands and customer counts to assign
15 mains cost responsibility.

16 Under the Customer/Demand method, the weights given to class customer counts
17 and peak day demands are determined from a separate analysis using one of two
18 approaches: minimum-size and zero-intercept. The “minimum-size” approach prices the
19 entire system footage of mains at the cost per foot of the smallest diameter pipe installed.
20 This “minimum-size” cost is then divided by the actual total investment in mains to
21 determine the weight given to customer counts. One (1) minus the customer percentage

⁵ Under the Peak and Average or Demand/Commodity approach, peak use and annual throughput are either weighted equally or based on system load factor, where load factor is ratio of average daily usage to peak day usage. When using a load factor approach to weight Peak and Average usage, the weighting of average day usage is that of the system load factor while the peak day weight is one minus the system load factor.

1 is then given to the peak day demand within the allocation process. The second approach
2 used to classify and allocate mains based partially on customers and partially on peak
3 demand is known as the “zero-intercept” method. Under this approach, statistical linear
4 regression techniques are used to estimate the cost of a theoretical “zero size” Main.
5 Similar to the minimum size approach, the cost of this estimated zero size pipe per foot is
6 multiplied by the total system footage and is then divided by total mains investment to
7 arrive at a customer weighting.

8
9 **Q. WHICH METHOD DID THE COMPANY USE TO ALLOCATE COSTS TO**
10 **CUSTOMER CLASSES FOR THIS CASE?**

11 A. Company witness Paul Raab conducted his cost study utilizing the
12 Customer/Demand method to allocate mains.

13
14 **Q. IS THERE A PREFERRED METHOD TO ALLOCATE NATURAL GAS**
15 **DISTRIBUTION MAINS COSTS?**

16 A. Yes. The Peak and Average approach is the most fair and equitable method to
17 assign natural gas distribution mains costs to the various customer classes. This method
18 recognizes each class’s utilization of the Company’s facilities throughout the year yet
19 also recognizes that some classes rely upon the Company’s facilities (mains) more than
20 others during peak periods.

21
22 **Q. WHAT RATIONALE IS USED TO ALLOCATE MAINS INVESTMENT, AT**
23 **LEAST PARTIALLY, BASED ON CUSTOMER COUNTS?**

1 A. I am aware of two rationales, or arguments, used to advocate the allocation of
2 natural gas distribution mains based partially on number of customers. While the
3 conceptual argument has no economic or practical logic in my opinion, the second
4 rationale may produce reasonable results in some instances, but is rarely applicable to
5 natural gas LDCs.

6 The first rationale used by some analysts is that, because every customer
7 (regardless of size) must be physically connected to the utility's distribution network,
8 there is some minimum level of investment required to simply connect customers to the
9 distribution system. It is certainly true that, unless natural gas is delivered in a portable
10 tank or cylinder, some form of a physical "plumbing" is required to deliver natural gas to
11 each and every end-user.⁶ Indeed, this is the very purpose of the distribution system.
12 However, no customer connects to a LDC system simply to be connected but never
13 utilize natural gas, nor do LDC's haphazardly install natural gas mains where no usage is
14 present or anticipated. Because there is no economic utility (benefit) derived from simply
15 being connected to a system, there is no economic (or cost causative) basis for assigning
16 some value of a LDC's distribution mains required to simply connect customers.

17 The second rationale used to consider number of customers within the allocation
18 of mains relates to customer densities and differences in the mix of customers (by class)
19 throughout a utility's service area. Possibly the best way to explain why customer
20 densities may be relevant in the assignment of distribution costs to individual classes is
21 by way of example. Consider two different utilities: a rural electric utility with urban,
22 suburban, and rural service areas and another utility with only urban and suburban

⁶ If natural gas was delivered to end-users in tanks (such as done with propane), there would be no distribution system, or Mains to allocate.

1 customers. With respect to the electric utility with a rural service area, many miles of
2 conductors and associated plant must be installed in order to serve the demands of
3 relatively few customers. Conversely, many more customers are served on a per mile
4 basis for the urban/suburban utility. With respect to the utility with a rural service area,
5 such an allocation based on usage or demand may be unfair if some classes are located
6 mainly in urban or suburban areas, while other classes of customers are located in urban,
7 suburban, and rural areas. As a result, some cost studies classify distribution plant as
8 partially demand-related and partially customer-related.

9
10 **Q. IN THE ABOVE EXAMPLE, YOU REFERRED TO ELECTRIC UTILITIES**
11 **INSTEAD OF NATURAL GAS UTILITIES. IS THERE A REASON WHY YOU**
12 **SELECTED THE ELECTRIC UTILITY INDUSTRY FOR YOUR EXAMPLE?**

13 A. Yes. Although the concepts are the same between electric and natural gas
14 distribution facilities (e.g., conductors are synonymous with mains), electric utilities are
15 *required* to serve rural (sparsely populated) areas. Such requirements, however, are **not**
16 in place for natural gas LDCs. Moreover, electric utilities are required to connect all
17 consumers regardless of density or usage. Such is not the case for natural gas LDCs, as
18 their tariffs allow the utility to only connect those customers in areas with sufficient
19 customer densities and usage.

20 As such, and as a general matter, a Customer/Demand classification of *electric*
21 distribution facilities may be appropriate given the characteristics of a utility's service
22 area, but are rarely appropriate for *natural gas* LDCs with more densely populated
23 service areas that are not required to serve all potential residences and businesses.

1 **Q. HOW APPROPRIATE IS A CUSTOMER/DEMAND SEPARATION FROM A**
2 **DESIGN OR OPERATIONAL PERSPECTIVE?**

3 A. First and foremost, the classification of distribution plant as partially customer,
4 and partially demand-related results from the view that the assignment of these plant
5 items to classes based solely on a demand allocator would not be equitable to some
6 classes. I emphasize this point, because many analysts “lose sight of the forest for the
7 trees.” When classifying individual accounts within distribution plant, analysts
8 sometimes do not consider how a distribution system is designed and connected.

9 There are several major factors the analyst should keep in mind when classifying
10 natural gas distribution plant. First is the fact that purchasing economies are usually
11 present. For example, there are many types and sizes of pipe manufactured. However,
12 due to purchasing economies, a utility may purchase only a few different sizes of pipe.
13 This will result in some “over capacity,” however, the total installed cost will be less than
14 if every segment of the system is optimally sized. Second, most components of the
15 distribution system are somewhat oversized for other reasons, such as pressure
16 equalization, safety, reliability, and growth uncertainty. Third, historical asset records
17 reflecting capitalized labor and material costs by size and type of investment are far from
18 perfect.⁷ These asset records are the underlying source for conducting minimum size and
19 zero-intercept studies. Fourth, and particularly relevant to most natural gas LDC’s
20 including Atmos is that it generally costs significantly more to install and maintain mains
21 pipes in more urban (densely populated) areas of the Company’s service area than in its
22 more suburban (less densely populated) areas. This is because of the infrastructure

⁷ Reasons for less than perfect record keeping include: the loss of data over time, the changing needs of recordkeeping by a Company, data processing limitation, different record keeping practices and detail by companies prior to mergers/acquisition by other companies.

1 within, and adjacent to, mains rights-of-way as well as the predominant types of pipe
2 used in various areas. In the more urban parts of a service area, mains are generally
3 buried under roads and sidewalks creating significantly higher costs than suburban areas
4 in which a single trench along a road-side is often the only thing necessary. Moreover,
5 due to the size of pipes required as well as safety needs, larger pipes in the suburban
6 areas tend to be steel as opposed to much cheaper plastic pipe.

7 Although these factors are reflective of how distribution systems are actually
8 installed and operated, classification studies do not account for these factors. In fact, the
9 presence of these factors can seriously skew the results of such studies.

10
11 **Q. SHOULD PEAK DAY DEMANDS BE THE ONLY CONSIDERATION WHEN**
12 **ALLOCATING NATURAL GAS DISTRIBUTION MAINS?**

13 A. No. Perhaps the most fundamental aspect of cost allocation is the desire to
14 reasonably assign costs (plant and expenses) based on cost causation. As indicated
15 earlier, while it is appropriate to consider and reflect class peak demands when allocating
16 distribution mains, it should not be the only criteria. An LDC system is constructed and
17 is in existence in order to serve the natural gas energy needs of its customers throughout
18 the year. If Atmos (or any natural gas LDCs) customers only demanded gas for one day
19 of the year (the so-called peak day), the costs to deliver gas throughout the system would
20 be prohibitively high such that a system would never exist. In other words, Atmos
21 customers' demand and utilize natural gas every day of the year, not just one day out of
22 365 days. If by chance, a customer did require gas for only one day a year, it would be
23 prohibitively expensive to the Company (and ultimately the customer) to provide service

1 as the investment in mains would therefore be required to be recovered from a very small
2 amount of natural gas energy (usage) and would be economically unfeasible.

3
4 **Q. IS ATMOS' "MAINS EXTENSION" POLICY CONSISTENT WITH THE**
5 **REALITY THAT CUSTOMERS UTILIZE NATURAL GAS THROUGHOUT**
6 **THE YEAR AND NOT ON JUST A SINGLE DAY?**

7 A. Yes. When Atmos evaluates a Main extension proposal or project, it considers
8 the maximum load that will be placed on the extension as well as the annual usage of the
9 Main extension in determining customer (developer) contribution requirements.

10
11 **Q. EVEN THOUGH MAINS ARE INSTALLED TO MEET THE NATURAL GAS**
12 **ENERGY NEEDS OF CUSTOMERS THROUGHOUT THE YEAR AND IT**
13 **WOULD BE PROHIBITIVELY EXPENSIVE TO SERVE A CUSTOMER FOR**
14 **ONLY ONE DAY PER YEAR, DOES IT COST MORE TO INSTALL A MAIN**
15 **WITH HIGHER PEAK DEMANDS PLACED UPON IT THAN ANOTHER**
16 **SEGMENT WITH LOWER PEAK DAY DEMAND REQUIREMENTS?**

17 A. While this is correct as a broadly general statement, there is not a direct and linear
18 relationship between peak demands (capacity requirements) and costs. This is the most
19 important concept. That is, if one were to consider allocating the cost of mains based on
20 the physical relationships of peak day demand (load) one must evaluate whether costs
21 increase proportionally and in a linear manner with peak load. In reality, if the peak load
22 on one line segment of mains is double that of another line segment, the cost of mains for
23 a higher capacity pipe (to meet these additional costs) may be higher but is not double

1 that of the lower capacity main. This reality reflects the major shortcoming of the Peak
2 Responsibility method (which allocates mains entirely on peak day demand) because it is
3 premised on the incorrect assumption that there is a direct and perfectly linear
4 relationship between peak loads (demand), system capacity, and costs. With regard to
5 system capacity, the amount of gas that can be delivered throughout a LDC system is not
6 only a function of the size of pipe(s) but also pressurization of gas within these pipes,
7 and, as well, the presence or absence of looping various segments of the distribution
8 system. In very simple terms, and all else constant, the *capacity* of pipes increases by a
9 factor of exactly 4 to 1 as the *diameter* of pipe increases.⁸ Therefore, if the size of pipe is
10 doubled, the capacity of the pipe increases by a factor of four. At the same time, the cost
11 of this additional capacity is far less than four times as much.⁹

12 Additionally, and as important as the geometric capacity of pipe at a given
13 pressure, the amount of gas required to be pushed through a distribution system can be
14 met with larger pipes at lower pressures or smaller pipes at higher pressures. This fact is
15 most relevant for cost allocation purposes for older LDC's with large mains replacement
16 programs. With increases in materials, technology, and pipe coupling improvements, we
17 are seeing that LDC's are replacing their systems with *smaller* plastic pipes operated at
18 *higher* pressures. For example, based on current pipe manufacturing specifications, a 2-
19 inch plastic pipe operating at 60 pounds per square inch gauge ("psig") has
20 approximately 3.6 times the capacity of a 4-inch plastic line operating at low pressures

⁸ The volume of a cylinder (pipe) is equal to $\pi (3.14159) \times \text{Radius}^2 \times \text{length}$. Therefore, it can be seen that as the diameter doubles, the area (volume) of the pipe increases by four times that of the smaller pipe.

⁹ The cost of Mains investment reflects the cost of capitalized labor to install the Main plus the cost of materials (the piping). Although the labor cost of installing pipe increases somewhat with larger size pipe, these additional labor costs tend to be much smaller than the capacity added. Similarly, the materials cost of the pipe also increases but by a much smaller percentage than the capacity added.

1 (less than 1psig). Because the allocation of mains only concerns the assignment of the
2 pipes costs, there is not a clear relationship between a main segment's capacity (peak
3 load ability) and the cost of that pipe. The relevance of this is that an allocation method
4 that only considers peak load by definition assumes there is a direct and perfectly linear
5 relationship between load (capacity) and the cost of mains. This assumption is clearly
6 not accurate.

7
8 **Q. SINCE THERE IS NOT A DIRECT AND LINEAR RELATIONSHIP BETWEEN**
9 **PEAK LOAD REQUIREMENTS AND THE COST OF MAINS, IS THERE A**
10 **COST ALLOCATION METHOD THAT REASONABLY REFLECTS THE COST**
11 **CAUSATION OF MAINS?**

12 A. Yes. When properly applied, the Peak and Average (Demand/Commodity)
13 method reasonably and fairly models the economies of scale reflected in mains
14 investment. If all customers (and classes) demanded and utilized natural gas at a
15 consistent rate throughout the year, Atmos' LDC system would be comprised of smaller
16 size mains. Obviously, such is not the case in that Atmos' peak (design day) demands are
17 about 2.4 times that of its average day firm service demands.¹⁰ Even though the
18 increased capacity required to serve design day peak loads is about two and a half times
19 that required for average day loads, the actual cost of mains is smaller than this
20 relationship. In fact, it is apparent that the diameters of Atmos' mains are about twice as
21 large as would be required under constant load conditions. However, the incremental
22 cost of this additional capacity (to serve design day loads versus average day loads) is

¹⁰ Per Company CCOSS. Total design day demand is 273,558 MCF, whereas average day demand is 115,931 MCF.

1 less than a factor of two. As such, a cost allocation method which allocates about half of
2 Atmos' mains costs based on average demand and the remaining half on peak demand
3 serves as a reasonable proxy for cost causation and fairly assigns class cost responsibility.
4 To summarize, the allocation of mains solely on peak demands does not reflect cost
5 causation due to the economies of scale present in meeting the capacity (design day)
6 needs of the company's distribution system; i.e., as peak demand increases, costs increase
7 at a decreasing rate.

8
9 **B. Atmos Specific Class Cost of Service**

10
11 **Q. HOW DID MR. RAAB DEFINE THE VARIOUS CLASSES FOR PURPOSES OF**
12 **HIS CCOSS?**

13 A. Mr. Raab has separated Atmos' total jurisdictional business into four classes as
14 follows:

15 **Residential** – residential sales service;

16 **Commercial & Public Authority** – commercial and public authority sales
17 service;

18 **Firm Industrial** – firm industrial sales service; and,

19 **Interruptible & Transportation** – interruptible sales and transportation service
20 plus firm transportation service.

21
22 **Q. ARE THESE CLASS DEFINITIONS, OR CATEGORIES, APPROPRIATE FOR**
23 **COSTING PURPOSES?**

1 A. Not entirely. Atmos has a single firm sales rate schedule (G-1) that serves all firm
2 sales customers including Residential, Commercial, Public Authority and Industrial
3 customers. In this regard, the current rate structure is designed such that there is a
4 reasonable costing and pricing differential between these various classes of customers.¹¹
5 However, within the Company's designated "Interruptible/Transportation" class,
6 numerous rate schedules and types of service are combined. This "class," as defined by
7 Atmos includes interruptible sales (G-2), firm transportation (T-4), interruptible
8 transportation (T-3), and negotiated discounted rate customers ("Special Contracts"). For
9 costing and revenue adequacy purposes, this combination of numerous types of service
10 and pricing levels does not provide a reasonable basis for evaluating revenue and rate
11 responsibility. For example, Interruptible service is considered to be inferior in quality to
12 that of Firm service, such that the price for Interruptible service is (and generally should
13 be) lower than that for Firm service. However, the Company has combined these two
14 types of service into a single "class" for costing purposes. Furthermore, this class
15 includes all negotiated rate customers in which the rates charged to these customers are
16 significantly lower than those of the Commission approved full tariff rates. Because the
17 revenues associated with these discounted rate customers distort the revenues (and costs)
18 associated with the entire class, these discounted rate customers should be separated for
19 costing purposes.

20

¹¹ The G-1 rate structure will be discussed in more detail later in my testimony. The current rate structure has a different fixed monthly customer charge for residential and non-residential customers as well as a three-tiered declining-block usage rate structure such that residential customer usages essentially remain in the first usage block, while commercial/public authority customer usages move into the second usage block and some industrial customers have enough usage to move into the third usage block.

1 **Q. HOW SHOULD ATMOS REDEFINE THE CURRENT INTERRUPTIBLE AND**
2 **TRANSPORTATION CLASS?**

3 A. In future cases, this current single class should be separated into three separate
4 classes: Interruptible; Firm Transportation; and, Special Contracts.
5

6 **Q. NOTWITHSTANDING THE DEFINITION OF CLASSES, DO YOU HAVE**
7 **OTHER DISAGREEMENTS OR CONCERNS WITH MR. RAAB'S CCOSS**
8 **STUDY?**

9 A. Yes. Perhaps the easiest way to explain my other disagreements is to group them
10 into four categories in order to enable the Commission and parties to understand the
11 quantifiable impact of these disagreements (in terms of class rates of return). These four
12 groups of differences can be categorized as: (1) minor disagreements with Mr. Raab's
13 selection of specific allocators other than mains and affiliate charges; (2) the treatment
14 and allocation of Atmos general corporate overhead and affiliate charges to Atmos of
15 Kentucky; (3) the classification of mains between "customer" and "demand" related; and,
16 (4) the selection of an appropriate allocation method to assign mains costs.
17

18 **Q. PLEASE IDENTIFY AND EXPLAIN YOUR MINOR DISAGREEMENTS WITH**
19 **MR. RAAB'S SELECTION OF ALLOCATORS FOR VARIOUS ACCOUNTS.**

20 A. First, it should be noted that Mr. Raab provided a revised and corrected CCOSS in
21 response to Staff Data Request No. 3-19 and AG Data Request 2-90. As a result, several
22 of my disagreements were resolved with Mr. Raab's revised CCOSS. However, I still

1 have a few minor disagreements with Mr. Raab's selection of specific allocators (other
2 than mains and affiliate charges).

3 With respect to Taxes Other Than Income – Payroll Based, Mr. Raab allocated
4 this expense based on Total O&M expenses including gas costs and uncollectible
5 expenses. In my opinion, a more appropriate allocation is to exclude gas costs and
6 uncollectibles as there is no payroll related to these expenses.

7 With regard to the DOT Transmission User Tax, Mr. Raab also allocated this
8 expense based on Total O&M expenses (including gas costs and uncollectibles). A more
9 reasonable allocation approach would be to assign this expense based on transmission
10 plant investment.

11 The next item concerns PSC Assessment expense. Mr. Raab has allocated this
12 expense based on annual MCF. Because the PSC Assessment is based on an LDCs
13 revenue, an allocation based on total revenues more closely reflects cost causation.

14 The last item concerns Materials & Supplies within rate base. Whereas Mr. Raab
15 assigned this rate base cost based on Total O&M expenses including gas costs and
16 uncollectibles, a more reasonable approach is to assign this cost based on O&M expenses
17 excluding gas costs and uncollectible expense.

18 My selection and use of the above allocators produce fairly small rate of return
19 differences from those obtained by Mr. Raab (in his revised CCOSS) as shown below:

20 TABLE 2

	<u>Total</u>	<u>Resid.</u>	<u>Comm./ Public Auth.</u>	<u>Firm Ind.</u>	<u>Interrup./ Transp.</u>
21 Raab Revised	5.31%	1.55%	10.08%	0.64%	26.35%
22 23 Watkins-Minor Revisions to Raab	5.31%	1.51%	10.27%	3.79%	26.11%

1 **Q. PLEASE IDENTIFY AFFILIATE CHARGES THAT ARE ASSIGNED TO**
2 **ATMOS OF KENTUCKY.**

3 A. In addition to costs directly incurred by Atmos of Kentucky, various affiliate
4 charges are also assigned to the Company's jurisdictional business for ratemaking
5 purposes. These affiliate charges include general Atmos Corporation corporate overhead
6 expenses, Atmos "divisional" general expenses and charges from other affiliated
7 companies.

8
9 **Q. HOW ARE THESE AFFILIATE CHARGES REFLECTED IN MR. RAAB'S**
10 **CLASS COST OF SERVICE STUDY?**

11 A. Due to the lack of data and information provided by Atmos in its Filing, as well as
12 in discovery, this is not entirely clear. That is, although the AG propounded numerous
13 discovery requests in its initial and follow-up data requests specifically requesting this
14 information, the Company evaded these clear and direct requests for information by
15 providing a litany of non-responsive data and explanations that resulted in nothing more
16 than "smoke and mirrors" as to what level of costs are directly incurred by Atmos of
17 Kentucky and what costs are assigned by affiliates on an account-by-account basis.
18 However, it is known that all of the costs designated as "Account No. 922 -
19 Administrative Expenses Transferred," which total \$13.071 million reflect charges
20 assigned to Kentucky from affiliates. Furthermore, with respect to rate base, Mr. Raab's
21 CCOSS does separate plant investment between: Kentucky Direct; Kentucky Mid-States
22 General Office; Shared Services - General Office; and, Shared Services - Customer
23 Support.

1 Q. WITH REGARD TO RATE BASE, IN WHICH THE COMPANY DOES
2 PROVIDE A CLEAR SEPARATION BETWEEN KENTUCKY DIRECT AND
3 ASSIGNED AFFILIATE INVESTMENT, HOW DID MR. RAAB ALLOCATE
4 AFFILIATE PLANT?

5 A. Mr. Raab allocated all non-Kentucky Direct (i.e., assigned affiliated plant
6 investment) based upon Kentucky Direct plant (excluding intangible and general).

7

8 Q. IS MR. RAAB'S ALLOCATION OF AFFILIATE PLANT INVESTMENT BASED
9 UPON KENTUCKY DIRECT PLANT INVESTMENT REASONABLE?

10 A. Yes. This affiliate investment reflects the assignment of a portion of Atmos
11 corporate, and divisional plant investment such as office buildings, furniture, computers,
12 and general equipment to the Kentucky jurisdiction. An allocation of these costs to
13 specific customer classes based on detailed Kentucky Direct plant investment is
14 reasonable.

15

16 Q. WITH REGARD TO EXPENSE ACCOUNT NO. 922, WHICH REFLECTS
17 ALLOCATED AFFILIATE EXPENSES CHARGED TO ATMOS, HOW DID MR.
18 RAAB ALLOCATE THIS ACCOUNT?

19 A. Mr. Raab allocated these affiliate expenses based upon the sum of Kentucky
20 Direct distribution expenses, total customer accounting expenses (excluding
21 uncollectibles), total customer service and information expenses, total sales expenses,
22 total property insurance expenses, and total regulatory commission expenses.

23

1 **Q. IS MR. RAAB'S APPROACH TO ALLOCATE EXPENSE ACCOUNT NO. 922**
2 **(AFFILIATE CHARGES) FAIR AND REASONABLE?**

3 A. No. When the details of Mr. Raab's allocation of these affiliate charges is
4 understood, we can see that his allocation factor is heavily weighted based on the number
5 of customers (due to prior accounts being allocated simply based on customer counts).
6 Such a heavy weighting based on number of customers assigns a disproportionately large
7 amount of these affiliate general overhead costs to the Residential class and an
8 unreasonably small level of cost assignment to the non-Residential classes. It should be
9 remembered that the affiliate costs reflected in Account No. 922 represents general
10 corporate overhead expenses such as executive salaries and benefits, general corporate
11 office supplies, general corporate building maintenance, general corporate legal and
12 auditing expenses, general corporate insurance, general corporate wages and benefits, etc.
13 While an allocation of these costs based on each class's utilization of Atmos of
14 Kentucky's resources (i.e., annual MCF) would be appropriate, I have allocated Account
15 No. 922 expenses in the same manner that Mr. Raab allocated affiliate plant investment;
16 i.e., based on Kentucky Direct plant investment. It should be noted that while there is no
17 absolutely correct method to assign these affiliate and corporate overhead costs, a test of
18 reasonableness is the most appropriate standard.

19
20 **Q. WHAT IS THE AFFECT ON CLASS RATES OF RETURN WHEN YOUR**
21 **RECOMMENDED ALLOCATION OF AFFILIATE COSTS ARE REFLECTED**
22 **IN THE CCROSS?**

23

1 A. Building upon the minor adjustments presented in Table 2 above, the following
2 class rates of return are obtained:

3 TABLE 3

	<u>Total</u>	<u>Resid.</u>	<u>Comm./ Public Auth.</u>	<u>Firm Ind.</u>	<u>Interrup./ Transp.</u>
4 Raab Revised	5.31%	1.55%	10.08%	0.64%	26.35%
5 Watkins-Revisions to Raab 6 Affiliate Charges	5.31%	1.81%	9.94%	2.88%	24.35%

7
8 **Q. EVEN THOUGH MAINS SHOULD NOT BE ALLOCATED PARTIALLY ON**
9 **THE BASIS OF NUMBER CUSTOMERS, HAVE YOU EXAMINED MR. RAAB'S**
10 **CLASSIFICATION STUDY THAT SEPARATES MAINS BETWEEN**
11 **CUSTOMER AND DEMAND COMPONENTS?**

12 A. Yes.

13

14 **Q. DO YOU AGREE WITH THE CUSTOMER/DEMAND SPLIT MR. RAAB USED**
15 **IN HIS CUSTOMER/DEMAND CCROSS?**

16 A. No. Before I explain the numerical bias that results from Mr. Raab's mains
17 classification analysis, it should be remembered what is the analyst is trying to
18 accomplish conceptually once a decision is made to classify mains as partially customer-
19 related and partially demand-related. When a decision is made to allocate a portion of
20 mains based on customer counts, there are two general methods utilized in the utility
21 industry: the first, is known as the minimum-size approach, while the other is referred to
22 as the zero-intercept approach.

1 Under the minimum-size approach, one estimates the customer component of
2 mains based on the smallest (and cheapest) size pipe installed which then serves as a
3 proxy for the customer portion of mains. Because even the smallest size of pipe has a
4 considerable amount of load carrying capacity, and in fact, is used to meet these
5 customers' design day demands that are connected to this minimum-size pipe, the zero-
6 intercept method attempts to correct for the overstatement of the customer component
7 inherent with the minimum-size approach. Under a properly applied zero-intercept
8 method, the analyst estimates the cost per foot of a theoretically zero-sized pipe. In this
9 way, such a "zero-size" pipe would have no load carrying capacity but would only
10 include costs to install this non-load carrying main (primarily capitalized labor costs).
11 With this foundation established, we can now turn to Mr. Raab's Customer/Demand
12 classification analyses used for mains.

13 Mr. Raab used statistical linear regression techniques to estimate his zero-
14 intercept approach for his mains classification. As is a generally accepted practice, Mr.
15 Raab separated mains between steel and plastic pipe and conducted separate analyses for
16 each group.¹² In response to Staff Data Request 2-51, Mr. Raab's zero-intercept data sets
17 and analyses were provided. The following list shows the actual (data set) costs per foot
18 that he used in developing his zero-intercept (percent customer).
19
20
21
22

¹² However, although separate analyses were conducted for steel and plastic pipe, these amounts were combined for cost allocation purposes into a single Customer/Demand separation.

TABLE 4
Raab Data Used For Mains Classification
(Cost Per Foot)

Size	Steel	Plastic
1" or less	\$2.07	\$14.78
2"	\$2.67	\$6.47
3"	\$1.87	\$9.29
4"	\$6.37	\$12.16
6"	\$34.29	\$48.47
8"	\$10.09	--
> 8"	\$56.74	--

With the above unit costs noted (cost per foot) we can now evaluate the cost Mr. Raab estimated as a "zero-size" pipe per his statistical analysis. First, we should evaluate the reasonableness of Mr. Raab's overall data set. For purposes of his mathematical linear regression calculations, Mr. Raab has assumed a pipe size of ½-inch for all pipe 1-inch or less in diameter. While ½-inch pipe may rarely be used for service lines, I have never seen an occasion in which a natural gas distribution main is as small as ½-inch pipe. Because of the exponential mathematical function utilized by Mr. Raab, this assumption has a material impact on Mr. Raab's results. Next, if we observe the cost per foot of plastic pipe 1-inch or less, we see that this cost per foot is significantly more than larger plastic pipe with diameters of 2-inches and 3-inches. While there may be logical accounting reasons why the embedded cost of this very small pipe cost more per foot than larger pipe, it certainly makes no sense within the context of the analyses that Mr. Raab is attempting to conduct. Finally, we observe that Mr. Raab's statistical linear regression analysis is conducted on an exceptionally small number of observations. To illustrate, for plastic pipe, he has developed a mathematical equation based on only five observations. Although the theoretical reasons are well beyond the scope of this

1 testimony, it is well-known and understood that linear regression analyses based on as
2 few as five observations (particularly when non-linear equation estimation techniques are
3 used) produces unreliable results. When all of these short-comings are put together, one
4 simply can refer to the end result of Mr. Raab's analyses and conclude that his study is
5 unreliable and unreasonable. For example, Mr. Raab estimates a cost for zero-sized steel
6 pipe of \$3.17 per foot when his own data shows that the cost of load carrying pipes (3-
7 inches and less) are significantly less per foot than this estimate of a zero-size (non-load
8 carrying) pipe. Similarly, Mr. Raab's estimate for a zero-size plastic pipe is \$7.72 per
9 foot even though the cost of a 2-inch pipe is \$6.47 per foot.

10
11 **Q. NOTWITHSTANDING THE MATHEMATICS, STATISTICAL, AND DATA**
12 **SHORTCOMINGS OF MR. RAAB'S ANALYSES, WHAT ARE HIS END-**
13 **RESULTS AS IT APPLIES TO HIS CCROSS?**

14 **A.** Mr. Raab allocates the Company's total distribution mains investment based on a
15 weighting of 85.56% on number of customers and 14.44% on design day demands. In
16 other words, the Company's total distribution mains gross plant investment totals
17 \$163.306 million. Of this \$163.306 million amount, Mr. Raab has allocated \$139.725
18 million (85.56%) based on customer counts and \$23.582 million (14.44%) based on
19 design day demands. What this means is that for about 86% of the Company's cost of
20 mains, the same dollar amount is allocated to a small non-heating apartment customer as
21 is assigned to a huge industrial factory that uses millions of MCF per year and that only
22 about 14% of the Company's largest single investment (distribution mains) is utilized to
23 serve customers with varying load and usage requirements. By any standard, this is

1 grossly unreasonable and simply does not pass any informed or even common sense
2 “smell test.”

3
4 **Q. DOES MR. RAAB’S FLAWED ZERO-INTERCEPT ANALYSIS BIAS ANY**
5 **PARTICULAR CLASSES IN HIS CUSTOMER/DEMAND CCOSS?**

6 A. Yes. Mr. Raab’s flawed Customer/Demand split of mains severely over-allocates
7 cost to the residential class since this class represents about 90% of the number of
8 customers but only about 43% of design day demand and 23% of annual usage. As such,
9 Mr. Raab’s classification of mains significantly over-assigns mains and mains-related
10 costs to the residential class. Furthermore, because many other rate base and expense
11 items are allocated to classes based on the previous allocation of mains investment, Mr.
12 Raab’s bias has a compounding effect on the total costs allocated to each class.

13
14 **Q. HAVE YOU CALCULATED CLASS RORs USING THE PEAK**
15 **RESPONSIBILITY METHOD IN WHICH ALL MAINS COSTS ARE**
16 **ALLOCATED 100% BASED ON DESIGN (PEAK) DAY DEMANDS?**

17 A. Yes. As discussed earlier, although this Peak Responsibility method does not
18 realistically reflect cost causation due to economies of scale inherent in the cost of mains
19 investment (i.e., there is not a direct and linear relationship between the cost of mains and
20 peak load requirements), the following class RORs are achieved using the Peak
21 Responsibility method (and building upon my prior adjustments):

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TABLE 5

	<u>Total</u>	<u>Resid.</u>	<u>Comm./ Public Auth.</u>	<u>Firm Ind.</u>	<u>Interrup./ Transp.</u>
Raab Revised	5.31%	1.55%	10.08%	0.64%	26.35%
Watkins-Peak Responsibility (100% Peak Demand)	5.31%	5.22%	6.92%	-1.45%	4.61%

Q. HAVE YOU CONDUCTED A CCOSS THAT UTILIZES A MORE REASONABLE ALLOCATION OF COSTS AND MORE REASONABLY REFLECTS COST CAUSATION?

A. Yes. In addition to the adjustments previously discussed, I have conducted my preferred CCOSS utilizing the Peak and Average (“P&A”) method to allocate mains-related costs. My preferred CCOSS produces the following class RORs at current rates:

TABLE 6

	<u>Total</u>	<u>Resid.</u>	<u>Comm./ Public Auth.</u>	<u>Firm Ind.</u>	<u>Interrup./ Transp.</u>
Raab Revised	5.31%	1.55%	10.08%	0.64%	26.35%
Watkins-Peak & Average	5.31%	6.59%	8.16%	-0.83%	1.75%

The details of my Peak and Average CCOSS are provided in my Schedule GAW-2.

Q. WHAT ARE YOUR OVERALL CONCLUSIONS AND RECOMMENDATIONS REGARDING CLASS COST ALLOCATIONS FOR PURPOSES OF THIS CASE?

A. As discussed and shown in the Tables above, when adjustments are made to Mr. Raab’s study that are more reasonable and more realistically reflects cost causation,

1 significantly different results are obtained such that the Residential class is actually
 2 contributing more to profits and the overall system average whereas Industrial and
 3 Special Contract customers' rates produce a level of profit significantly lower than those
 4 of the overall system-wide average. A summary comparison of Mr. Raab's revised
 5 CCOSS to those using more reasonable cost allocations if provided in the Table below:

6
 7 TABLE 7

	Total	Resid.	Comm./ Public Auth.	Firm Ind.	Interrup./ Transp.
8 Raab Revised	5.31%	1.55%	10.08%	0.64%	26.35%
9 Watkins-Peak Responsibility 10 (100% Peak Demand)	5.31%	5.22%	6.92%	-1.45%	4.61%
11 Watkins-Peak & Average	5.31%	6.59%	8.16%	-0.83%	1.75%

12 **III. SPECIAL CONTRACTS (DISCOUNTED RATES)**

13
 14 **Q. PLEASE EXPLAIN THE CONCEPT OF DISCOUNTED RATES AS THEY**
 15 **RELATE TO ATMOS.**

16 **A.** As is the case with many LDCs, Atmos sometimes offers discounted rates (below
 17 Commission approved rates) to large customers that have alleged threats of by-passing
 18 the Company's distribution system and purchasing directly from an interstate pipeline, or
 19 that have alternative energy sources that are lower in cost than natural gas.

20
 21 **Q. DOES ATMOS OFFER ANY DISCOUNTED RATES DUE TO THE ALLEGED**
 22 **THREAT OF INTERSTATE PIPELINE BY-PASS?**

1 A. Yes. Atmos has sixteen (16) customers that receive discounted rates due to an
2 alleged threat of interstate pipeline by-pass. These sixteen discounted rate customers
3 have an annual usage of 13,509,751 MCF which equates to about 32% of Atmos' total
4 system annual throughput. The discounts associated with these customers total
5 \$6,109,525 and on average, represent a discount from Commission-approved full tariff
6 Industrial Transportation rates of 80.6% (i.e., the average discount is 80.6% below full
7 tariff rates).

8

9 **Q. HOW DOES ATMOS PROPOSE TO FUND THIS \$6.1 MILLION DISCOUNT?**

10 A. The Company proposes that all captive, full tariff customers collectively, fund
11 this discount.

12

13 **Q. DOES THIS MEAN THAT UNDER THE COMPANY'S PROPOSAL,**
14 **SHAREHOLDERS WILL BE INSULATED FROM THESE DISCOUNTED**
15 **RATES?**

16 A. Yes. Under the Company's proposal, shareholders will not fund any of this
17 discount and that captive ratepayers would be responsible for any revenue shortfall
18 resulting from these negotiated discount rates.

19

20 **Q. ARE THERE LEGITIMATE REASONS FOR NATURAL GAS LDCs OFFERING**
21 **DISCOUNTED RATES AND CIRCUMSTANCES IN WHICH CAPTIVE**
22 **RATEPAYERS SHOULD FUND SUCH DISCOUNTS?**

1 A. Yes. As a result of FERC Order No. 636, which required interstate pipeline open
2 access transmission service available to all end-users, some large industrial customers
3 that are located in close proximity to interstate pipelines determined that it is legally,
4 technically, and economically feasible to by-pass their natural gas LDC and purchase
5 directly from the interstate pipeline. Indeed, many industrial natural gas end-users
6 around the Country have done just this; i.e., by-passed the local LDC. Other large
7 industrial customers have negotiated with their natural gas LDCs for discounted
8 distribution rates such that the negotiated rates remained at or below the cost for the
9 industrial end-user to construct its own pipeline which would connect with an interstate
10 pipeline.

11 In circumstances in which there are legitimate and verifiable threats of by-pass, it
12 is reasonable for captive ratepayers to fund these discounts at least in the short-run.
13 However, the service provided to these discounted rate customers must be considered
14 "opportunity sales" such that the LDC must not in the future, plan and build for, the
15 capacity requirements of these negotiated rate customers (at discounted rate levels). In
16 other words, suppose that a large industrial customer with a negotiated rate is served with
17 an 8-inch main and that if this customer was not connected to the LDC, a 2-inch main
18 would suffice. If, and when, the LDC replaces or expands upon its system, it should not
19 replace the existing pipe with another pipe with similar capacity and expect captive
20 ratepayers to fund this new investment while at the same time the industrial customer
21 enjoys discounted rates that cover little more than variable (non-capacity related)
22 operating costs.

23

1 **Q. HAVE YOU ATTEMPTED TO EVALUATE THE LEGITIMACY AND**
2 **REASONABLENESS OF THE DISCOUNTED RATES OFFERED TO EACH OF**
3 **THESE SIXTEEN INDUSTRIAL CUSTOMERS?**

4 A. Yes. In AG Data Request 1-212, which was comprised of several subsections, I
5 requested a host of information that would enable me to evaluate the legitimacy and
6 reasonableness of each discounted rate. Included in this request were questions to Atmos
7 to provide “all records, documents, evaluations, and analyses undertaken by or for the
8 Company associated with each customer that supports the necessity for a tariff rate lower
9 than the full tariff rate.” The Company’s initial and supplemental responses to this
10 question are as follows:

11 Initial Response:

12
13 “These contracts and their discounted service rates have been approved by
14 the Commission on a case-by-case basis where they have each undergone
15 analysis and merited Commission approval.”

16
17 Supplemental Response:

18
19 “Please see the supplemental response to subpart (a). The documentation
20 of the revenue impact of the contracts and the commission acceptance of
21 the revenue requirement based on those contracts is reflected in the
22 attachments and the final order in Case No. 99-070.”

23
24 Supplemental Response to Subpart (a): “The tariff allowing Atmos
25 Energy to enter into special contracts with transportation customers is
26 found in the sections “Transportation Services” in the current tariff.
27 Atmos Energy submitted for Commission review, the special contracts
28 previously provided. They were not submitted as or treated as separate
29 case filings by the PSC. They were reviewed and a letter approving the
30 contract was issued to Atmos Energy. There is no case number or filing
31 number associated with the initial contract filing.

32
33 In the subsequent rate case, and in all rate cases since, the revenue
34 requirement associated with the previously approved contracts was
35 reviewed by the Commission. In Case No. 99-070, the first rate case after
36 the filing of the initial contracts, the revenue adjustment associated with

1 the special contracts was provided to the Commission as a response to a
2 Staff data request, which revised revenue requirement calculations with
3 the contract adjustments. That adjusted revenue requirement was
4 reviewed by the Commission and included in the final determination of
5 rates. The final order in that case reflects the contract rate adjustments and
6 as such constitutes approval of the "discounted" rates. Because the PSC
7 approved rates that included the modified contract rates, the final order in
8 each rate case represents the approval of the "special contract rate." There
9 is no other PSC order that addresses the contracts.
10

11 As can be seen above, Atmos' responses are clearly non-responsive. That is, while the
12 request asked for all documentation supporting the need for, and calculation of these
13 discounted rates, the Company did not provide a shred of the requested information, nor
14 did the Company indicate that it has or has not conducted such analyses but rather,
15 provides statements unrelated to the request that simply indicates that the Commission
16 has approved such discounted rates in prior cases.

17 Nonetheless, it is my responsibility to evaluate the reasonableness of the rates
18 charged in this rate proceeding. One of the proposals of Atmos in this proceeding is for
19 captive ratepayers to fully fund \$6.1 million of discounts provided to certain "special"
20 customers such that the rates charged to captive ratepayers would be \$6.1 million higher
21 than they would be absent such discounts. Furthermore, even though I did not participate
22 in prior proceedings (Atmos indicates that these discounted rates were approved in a
23 1999 case), I can find no indication that these discounted rates were either contested,
24 questioned, or fully evaluated by any of the parties in that case.
25
26
27

1 **Q. NOTWITHSTANDING ATMOS' NONRESPONSIVENESS TO YOUR DATA**
2 **REQUESTS, DID THE COMPANY PROVIDE SOME INFORMATION**
3 **RELATING TO DISCOUNTED RATE CUSTOMER'S LOCATIONS RELATIVE**
4 **TO INTERSTATE PIPELINES AND WHETHER THESE DISCOUNTED RATE**
5 **CUSTOMERS ALSO USE OTHER SERVICES OF ATMOS' UNREGULATED**
6 **AFFILIATES?**

7 A. Yes. In its supplemental response to Confidential Data Request AG 1-212, the
8 Company provided the approximate distance from each discounted rate customer's
9 location to the nearest interstate pipeline as well as whether each discounted rate
10 customer used an Atmos unregulated affiliate for purchasing their natural gas supplies.
11 This data is provided in my Confidential Schedule GAW-3.

12

13 **Q. WHY IS THE DISTANCE FROM A DISCOUNTED RATE CUSTOMER'S**
14 **FACILITY TO THE NEAREST INTERSTATE PIPELINE RELEVANT IN**
15 **EVALUATING THE LEGITIMACY AND REASONABLENESS OF A**
16 **DISCOUNTED RATE?**

17 A. The closer an industrial customer is to an interstate pipeline, the higher is the
18 probability that the customer could conceivably secure the required land and/or rights-of-
19 way to build their own pipeline as well as the higher is the possibility that a shorter
20 distance to build a "stand-alone" pipeline would be economically viable.

21

22 **Q. ARE SOME OF THE SIXTEEN DISCOUNTED RATE CUSTOMERS WITHIN**
23 **REASONABLY CLOSE PROXIMITY TO AN INTERSTATE PIPELINE?**

1 A. Some are and some are not. As shown in my Confidential Schedule GAW-3,
2 some of these discounted rate customers are located in reasonably close proximity to an
3 interstate pipeline; i.e., within **BEGIN CONFIDENTIAL** [REDACTED]
4 [REDACTED]
5 **END CONFIDENTIAL** For example, and as shown in Confidential Schedule GAW-3,
6 six of the sixteen discounted rate customers are located more than **BEGIN**
7 **CONFIDENTIAL** [REDACTED] **END CONFIDENTIAL** from the nearest
8 interstate pipeline. Such distances would make it very impractical, if not impossible, for
9 a private enterprise without eminent domain to secure easements, rights-of-way, or
10 purchase land necessary to traverse the required distance from multiple landowners.

11
12 **Q. WHAT IS THE RELEVANCE OF WHETHER A PARTICULAR DISCOUNTED**
13 **RATE CUSTOMER ALSO PURCHASES ITS GAS REQUIREMENTS FROM AN**
14 **UNREGULATED AFFILIATE OF ATMOS?**

15 A. First and foremost, I make no allegations or assertions concerning the conduct of
16 Atmos or its affiliates. An end-user of natural gas is not particularly concerned with how
17 its total natural gas energy costs are divided between distribution and gas supply. Rather,
18 that customer is concerned with the bottom line price. To the extent that Atmos
19 negotiates rate discounts in its distribution rates and an affiliate also provides gas supply
20 to the same customer, the potential for mischief is certainly present.

21

1 Q. HOW MANY OF THESE SIXTEEN NEGOTIATED DISCOUNT RATE
2 CUSTOMERS ALSO USE ATMOS UNREGULATED AFFILIATES FOR GAS
3 SUPPLY PURPOSES?

4 A. BEGIN CONFIDENTIAL [REDACTED] END CONFIDENTIAL

5
6 Q. MR. WATKINS, HAVE YOU BEEN ABLE TO DETERMINE HOW LONG
7 EACH OF THE CURRENT NEGOTIATED RATES HAS BEEN IN EFFECT?

8 A. Not totally. In its response to Confidential Data Request AG 1-212, the Company
9 provided the current service agreement for each of these negotiated discount rate
10 customers. Within each service agreement is the effective date and specified contractual
11 price for distribution service. Furthermore, the Company also provided the current rates
12 used in the test year for each of these customers. Therefore, I can determine the
13 minimum timeframe in which each of these discounted rates have been in effect.

14
15 Q. WHAT IS THE MINIMUM TIMEFRAME THAT THESE NEGOTIATED
16 RATES HAVE BEEN IN EFFECT?

17 A. With the exception of two customers, all of the negotiated rates have been in
18 effect since at least January 2000. As shown in my Confidential Schedule GAW-3, many
19 of these rates have not changed since the 1990s.

20
21 Q. DOES ATMOS PROPOSE A RATE INCREASE TO ANY OF THESE
22 NEGOTIATED RATE CUSTOMERS IN THIS CASE?

23 A. No.

1 Q. SO AM I CORRECT THAT BY AND LARGE, THESE DISCOUNTED RATE
2 CUSTOMERS HAVE NOT SUSTAINED ANY INCREASE IN DISTRIBUTION
3 RATES FOR AT LEAST 13 OR 14 YEARS?

4 A. That is correct.

5
6 Q. HAS ATMOS' COST OF DOING BUSINESS INCREASED OVER THE LAST 13
7 OR 14 YEARS?

8 A. Yes.

9
10 Q. HAS ATMOS' RATES TO CAPTIVE RATEPAYERS INCREASED OVER THE
11 LAST 13 OR 14 YEARS?

12 A. Yes.

13

14 Q. IS IT REASONABLE TO INFER THAT THE COST OF CONSTRUCTING A
15 STAND-ALONE PIPELINE TO CONNECT A CUSTOMER'S FACILITIES
16 WITH AN INTERSTATE PIPELINE HAS INCREASED OVER THE LAST 13
17 OR 14 YEARS?

18 A. Certainly. If for no other reason due to the effects of inflation.

19

20 Q. WHAT IS YOUR RECOMMENDATION REGARDING THE RATEMAKING
21 TREATMENT OF THESE DISCOUNTED RATES?

22 A. The issue of whether Atmos does or does not offer discounted rates to certain
23 customers is not of particular importance. What is important from a ratemaking

1 perspective is when the Company requests that captive ratepayers be totally responsible
2 for the revenue shortfall associated with these discounts. Although legal counsel has
3 advised me that the burden of proof is squarely on the applicant in this proceeding
4 regarding the justification of captive ratepayers fully subsidizing the discounts offered to
5 a selective few customers, I do not recommend a total disallowance of the \$6.1 million in
6 discounts for ratemaking purposes. Rather, I recommend that when class revenue
7 responsibility is established and rates are ultimately developed for captive ratepayers in
8 this case, that 50% of this \$6.1 million discount (\$3.05 million) be included (or at least
9 imputed) within the special contract revenues. Furthermore, the Commission should
10 require Atmos to fully document and support each of the discounts offered in future rate
11 cases to the extent the Company seeks recovery of these discounts from captive
12 ratepayers.

13
14 **IV. CLASS REVENUE ALLOCATION**

15
16 **Q. HOW DOES THE COMPANY PROPOSE TO DISTRIBUTE ITS REQUESTED**
17 **\$13.3 MILLION OVERALL INCREASE TO INDIVIDUAL CUSTOMER**
18 **CLASSES?**

19 **A.** First, it must be understood that because all firm sales customers, regardless of
20 class, are served by the same rate schedule (Rate G-1), a traditional allocation of the
21 requested revenue increase to the various classes contained within the CCOSS is not
22 particularly relevant in this case. With this understanding, Company witness Mark
23 Martin indicates that he considered the results of Mr. Raab's CCOSS but also reflected at

1 least some increase to each full tariff rate class and rate element. In other words, even
2 though Rate Schedule G-1 includes three separate “classes” of customers as used within
3 the CCOSS, Mr. Martin’s proposed rate design reflects differing percentage increases to
4 the various usage blocks within this rate schedule. In this regard, Mr. Martin’s proposed
5 rate design is reasonably consistent with Mr. Raab’s CCOSS.

6
7 **Q. IS MR. MARTIN’S PROPOSED REVENUE ALLOCATION AND RATE DESIGN**
8 **REASONABLE?**

9 A. In some regards, Mr. Martin’s recommendations are appropriate while in others I
10 recommend an alternative ratemaking treatment.

11
12 **Q. PLEASE EXPLAIN YOUR RECOMMENDED RATE DESIGN AND IMPLICIT**
13 **REVENUE ALLOCATION.**

14 A. As I indicated earlier in my testimony, class cost allocations should only be used
15 as a guide in evaluating revenue responsibility. In this regard, even though my Peak and
16 Average study provides the most reasonable allocation of the Company’s joint costs, I
17 recognize that other legitimate cost allocation approaches yield different results.
18 Therefore, I have considered both my Peak and Average study as well as my Peak
19 Responsibility study (mains allocated 100% based on design day demand) in evaluating
20 class revenue responsibility. A summary of these results is provided below:

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TABLE 8

	<u>Total</u>	<u>Resid.</u>	<u>Comm./ Public Auth.</u>	<u>Firm Ind.</u>	<u>Interrup./ Transp.</u>
Watkins-Peak Responsibility (100% Peak Demand)	5.31%	5.22%	6.92%	-1.45%	4.61%
Watkins-Peak & Average	5.31%	6.59%	8.16%	-0.83%	1.75%

As can be seen above, the Commercial/Public Authority class is currently earning a rate of return (“ROR”) above the system-wide average. As such, an increase to this customer class somewhat smaller than the overall system average is appropriate. Recognizing that the Commercial/Public Authority class is served under Rate Schedule G-1 (which also includes the Residential and Firm Industrial class), the second usage block of this rate (301 to 15,000 MCF/month) is predominately related to Commercial/Public Authority usage.

With regard to the Rate Schedule G-1 second usage block, Mr. Martin proposes a 14.29% increase, which is 68% of the system-wide requested percentage increase in base distribution rate revenues of 20.99%. Therefore, with respect to the Rate Schedule G-1 second usage block, I find Mr. Martin’s recommendation reasonable and appropriate.

With regard to the Rate Schedule G-1 third usage block, Mr. Martin proposes a 24.00% increase, which is 114% of the system-wide requested percentage increase in base distribution rate revenues of 20.99%. This third usage block is used entirely by Firm Industrial customers. As indicated in Table 8 above, the Firm Industrial class is contributing somewhat less than the system-wide average rate of return such that a larger percentage increase is appropriate for this class and rate element. Therefore, with respect

1 to the Rate Schedule G-1 third usage block, I find Mr. Martin's recommendation also
2 reasonable and appropriate.

3
4 **Q. PLEASE CONTINUE.**

5 A. My next step was to evaluate revenue responsibility for the individual rate
6 schedules within the Interruptible/Transportation class. This class is comprised of
7 Interruptible Sales (Rate G-2), Firm Transportation (Rate T-4), Interruptible
8 Transportation (Rate T-3), and Special Contracts (discounted rates). As indicated earlier
9 in this testimony, this "class" as defined in the Company's CCOSS is comprised of a
10 multitude of customer types and types of service. As such, the cost of service results are
11 of little use in establishing rates for the individual rate schedules within this "class."
12 However, the CCOSS results do show that this "class" on a composite basis is under-
13 contributing to the Company's overall profitability.

14 As discussed earlier, I have assigned an increase of \$3.055 million to the Special
15 Contracts class which represents 50% of the difference between these customers' actual
16 discounted rates and the revenue that would be achieved under Commission-approved
17 full tariff rates (before any rate increase in this case). I then assigned 100% of the
18 system-wide percentage increase in base rate distribution revenues (20.99%) to each of
19 the Interruptible Sales (G-2), Firm Transportation (T-4), and Interruptible Transportation
20 (T-3) rate schedules.

21 Finally, and as will be discussed later in my testimony, I recommend no increase
22 to the current G-1 fixed monthly customer charge. As such, the G-1 first usage block (1
23 to 300 MCF) serves as the residual so that the overall revenue requirement is achieved.

1 The details of my proposed revenue distribution and rate design are provided in my
 2 Schedule GAW-4. A summary and comparison of individual rate increases (at the
 3 Company's overall requested level) is provided below:

4 TABLE 9
 5 Summary Comparison of Proposed Rate Increases
 (\$000)

6 Rate	7 Current Base Rate Revenue	8 Company Proposed Increase		9 AG Proposed Increase	
		Amount	Percent	Amount	Percent
Resid. (G-1)	\$36,974.3	\$8,303.8	22.46%	\$5,240.8	14.17%
Comm./Pub. Auth. (G-1)	\$13,782.9	\$3,546.4	25.73%	\$2,627.0	19.06%
10 Firm Ind. (G-1)	\$524.9	\$161.3	30.74%	\$153.8	29.30%
Interrupt. Sales (G-2)	\$188.1	\$22.7	12.05%	\$39.5	20.99%
Firm Trans. (T-4)	\$5,621.9	\$492.2	8.75%	\$1,180.3	20.99%
Interrupt. Trans. (T-3)	\$4,638.1	\$743.5	16.03%	\$973.8	20.99%
Special Contracts	\$1,475.2	\$0.0	0.00%	\$3,050.8	Imputed
Total Base Rate Revenue	\$63,205.4	\$13,269.9	20.99%	\$13,269.9	20.99%
Other Revenue	\$1,904.4	\$97.2	5.10%	\$97.2	5.10%
11 TOTAL COMPANY	\$65,109.7	\$13,367.0	20.53%	\$13,367.0	20.53%

12
 13 **Q. TO THE EXTENT THE COMMISSION AUTHORIZES AN OVERALL**
 14 **INCREASE LESS THAN THE \$13.367 MILLION REQUESTED BY ATMOS,**
 15 **HOW SHOULD THE INCREASE BE SPREAD TO INDIVIDUAL CLASSES**
 16 **AND/OR RATE ELEMENTS?**

17 **A.** The general approach and methodology explained above should be utilized and
 18 scaled-back to reflect the overall authorized increase. Specifically, the Rate Schedule G-
 19 1 customer charge should remain at current levels, an imputed increase of \$3.051 million
 20 should be assigned to Special Contract customers, and all other rates and revenues should
 21 then be scaled-back consistent with the methodology I provided above.

1 **V. RESIDENTIAL RATE DESIGN**

2

3 **Q. PLEASE DESCRIBE ATMOS' CURRENT RESIDENTIAL RATE STRUCTURE.**

4 A. As discussed earlier, Residential customers are served under Rate Schedule G-1.
5 Although the Rate Schedule is comprised of a fixed monthly customer charge as well as
6 three-tiered declining-block usage rates, the Residential consumption is entirely within
7 the first usage block of 1 to 300 MCF per month. Therefore, for all intents and purposes,
8 Residential customers are subject to a flat usage rate per MCF.

9

10 **Q. WHAT IS YOUR RECOMMENDATION AS TO THE RESIDENTIAL RATE**
11 **STRUCTURE?**

12 A. As will be discussed below, I recommend no increase to the current Residential
13 fixed monthly customer charge of \$14.28.

14

15 **Q. DID YOU EVALUATE THE REASONABLENESS OF THE CURRENT**
16 **RESIDENTIAL FIXED MONTHLY CUSTOMER CHARGE OF \$14.28?**

17 A. Yes. Customer costs should only reflect those costs that are required to connect a
18 new customer and maintain that customers' account. The approach that I use and which
19 is widely-used in the industry is often referred to as a "Direct Customer Cost" analysis. I
20 have conducted a Direct Customer Cost analysis which is provided in my Schedule
21 GAW-5 and results in a monthly cost between \$5.23 and \$9.26. As can be seen in my
22 Schedule GAW-5, the higher end of this range provides for the cost of all metering as
23 well as a full profit provision for Services, Meters, and House Regulators. The lower-end

1 of my range excludes metering costs. The rationale for excluding metering costs is that
2 metering is only needed to measure the volume of gas that a customer consumes, and is
3 therefore, clearly a function of volumetric use. Indeed, the New Jersey Board of Public
4 Utilities specifically excluded metering costs within the determination of customer
5 charges for many years. However, I do acknowledge that the upper-end of my customer
6 cost analysis (\$9.26) is the most commonly-used and accepted approach in the industry.

7
8 **Q. DOES YOUR RECOMMENDATION TO MAINTAIN THE CURRENT**
9 **RESIDENTIAL FIXED MONTHLY CUSTOMER CHARGE OF \$14.28 ALSO**
10 **REFLECT POLICY GUIDANCE PROVIDED BY THE COMMISSION IN**
11 **PRIOR CASES?**

12 A. Yes. Although my cost analysis indicates that a decrease to the current customer
13 charge of \$14.28 would be warranted, I am also aware of the Commission's recent policy
14 to improve a utility's revenue stability and improve the utility's recovery of its fixed costs
15 as stated in its February 29, 2012 Order involving Owen Electric Cooperative in Case No.
16 2011-00037. In this regard, and as indicated in my Schedule GAW-4, Atmos currently
17 collects 71% of its total Residential base rate revenues from fixed monthly charges; i.e.,
18 \$26.373 million in fixed monthly customer charges out of a total Residential base rate
19 revenue of \$36.974 million. As such, less than 30% of Residential revenue is subject to
20 any revenue "instability." In addition, Atmos has other significant revenue stability
21 mechanisms currently in place including a Weather Normalization Adjustment ("WNA")
22 mechanism, a Pipeline Replacement Program ("PRP") Rider, and a DSM Rider. With all

1 of these factors considered, Atmos' Residential revenue recovery is exceptionally stable
2 at its current customer charge level.

3
4 **VI. ATMOS PROPOSED MARGIN LOSS RIDER ("MLR")**

5
6 **Q. DOES ATMOS PROPOSE ANY AUTOMATIC RECOVERY RIDERS IN THIS**
7 **CASE?**

8 A. Yes. Company witness Martin proposes a new Margin Loss Rider ("MLR") in
9 which any reduced profits (margins) resulting from rate discounts would result in an
10 automatic recovery of 50% of such lost margins from captive ratepayers outside of the
11 context of a general rate case or outside that of reasonable regulatory review.

12
13 **Q. DO YOU AGREE WITH THIS PROPOSED MLR?**

14 A. No. First of all, the proposed MLR constitutes single issue ratemaking. While
15 Atmos is seeking automatic rate recovery for any lost margins resulting from discounted
16 rate negotiations, no such automatic adjustments are proposed (or would be appropriate)
17 for items that would reduce expenses or increase Atmos' profitability between general
18 rate cases. Secondly, this proposed Rider would not be material in the sense of the
19 Company's overall operations such that minor issues are typically not considered within
20 the context of considering automatic rider recovery. Third, as is evident in my testimony
21 concerning Atmos' current discounted rates, there is no regulatory review for the
22 prudence and need for such discounts, let alone the level of any discounts that Atmos
23 offers outside the context of a general rate case. Finally, Atmos has been unable to

1 support the legitimacy and level of its current discounted rates, let alone those of any
2 future discounts. For these reasons, the Company's MLR should be rejected.

3

4 **Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?**

5 **A. Yes.**

BACKGROUND & EXPERIENCE PROFILE

GLENN A. WATKINS

VICE PRESIDENT/SENIOR ECONOMIST
TECHNICAL ASSOCIATES, INC.

EDUCATION

1982 - 1988	M.B.A., Virginia Commonwealth University, Richmond, Virginia
1980 - 1982	B.S., Economics; Virginia Commonwealth University
1976 - 1980	A.A., Economics; Richard Bland College of The College of William and Mary, Petersburg, Virginia

POSITIONS

Mar. 1993-Present	Vice President/Senior Economist, Technical Associates, Inc. (Mar. 1993-June 1995 Traded as C. W. Amos of Virginia)
Apr. 1990-Mar. 1993	Principal/Senior Economist, Technical Associates, Inc.
Aug. 1987-Apr. 1990	Staff Economist, Technical Associates, Inc., Richmond, Virginia
Feb. 1987-Aug. 1987	Economist, Old Dominion Electric Cooperative, Richmond, Virginia
May 1984-Jan. 1987	Staff Economist, Technical Associates, Inc.
May 1982-May 1984	Economic Analyst, Technical Associates, Inc.
Sep. 1980-May 1982	Research Assistant, Technical Associates, Inc.

EXPERIENCE

I. Public Utility Regulation

- A. Costing Studies -- Conducted, and presented as expert testimony, numerous embedded and marginal cost of service studies. Cost studies have been conducted for electric, gas, telecommunications, water, and wastewater utilities. Analyses and issues have included the evaluation and development of alternative cost allocation methods with particular emphasis on ratemaking implications of distribution plant classification and capacity cost allocation methodologies. Distribution plant classifications have been conducted using the minimum system and zero-intercept methods. Capacity cost allocations have been evaluated using virtually every recognized method of allocating demand related costs (e.g., single and multiple coincident peaks, non-coincident peaks, probability of loss of load, average and excess, and peak and average).
Embedded and marginal cost studies have been analyzed with respect to the seasonal and diurnal distribution of system energy and demand costs, as well as cost effective approaches to incorporating energy and demand losses for rate design purposes. Economic dispatch models have been evaluated to determine long range capacity requirements as well as system marginal energy costs for ratemaking purposes.
- B. Rate Design Studies -- Analyzed, designed and provided expert testimony relating to rate structures for all retail rate classes, employing embedded and marginal cost studies. These rate structures have included flat rates, declining block rates, inverted block rates, hours use of demand blocking, lighting rates, and interruptible rates. Economic development and special industrial rates have been developed in recognition of the competitive environment for specific customers. Assessed alternative time differentiated rates with diurnal and seasonal pricing structures. Applied Ramsey (Inverse Elasticity) Pricing to marginal costs in order to adjust for embedded revenue requirement constraints.

GLENN A. WATKINS

- C. Forecasting and System Profile Studies -- Development of long range energy (Kwh or Mcf) and demand forecasts for rural electric cooperatives and investor owned utilities. Analysis of electric plant operating characteristics for the determination of the most efficient dispatch of generating units on a system-wide basis. Factors analyzed include system load requirements, unit generating capacities, planned and unplanned outages, marginal energy costs, long term purchased capacity and energy costs, and short term power interchange agreements.
- D. Cost of Capital Studies -- Analyzed and provided expert testimony on the costs of capital and proper capital structures for ratemaking purposes, for electric, gas, telephone, water, and wastewater utilities. Costs of capital have been applied to both actual and hypothetical capital structures. Cost of equity studies have employed comparable earnings, DCF, and CAPM analyses. Econometric analyses of adjustments required to electric utilities cost of equity due to the reduced risks of completing and placing new nuclear generating units into service.
- E. Accounting Studies -- Performed and provided expert testimony for numerous accounting studies relating to revenue requirements and cost of service. Assignments have included original cost studies, cost of reproduction new studies, depreciation studies, lead-lag studies, Weather normalization studies, merger and acquisition issues and other rate base and operating income adjustments.

II. Transportation Regulation

- A. Oil and Products Pipelines -- Conducted cost of service studies utilizing embedded costs, I.C.C. Valuation, and trended original cost. Development of computer models for cost of service studies utilizing the "Williams" (FERC 154-B) methodology. Performed alternative tariff designs, and dismantlement and restoration studies.
- B. Railroads -- Analyses of costing studies using both embedded and marginal cost methodologies. Analyses of market dominance and cross-subsidization, including the implementation of differential pricing and inverse elasticity for various railroad commodities. Analyses of capital and operation costs required to operate "stand alone" railroads. Conducted cost of capital and revenue adequacy studies of railroads.

III. Insurance Studies

Conducted and presented expert testimony relating to market structure, performance, and profitability by line and sub-line of business within specific geographic areas, e.g. by state. These studies have included the determination of rates of return on Statutory Surplus and GAAP Equity by line - by state using the NAIC methodology, and comparison of individual insurance company performance vis a vis industry Country-Wide performance.

Conducted and presented expert testimony relating to rate regulation of workers compensation, automobile, and professional malpractice insurance. These studies have included the determination of a proper profit and contingency factor utilizing an internal rate of return methodology, the development of a fair investment income rate, capital structure, cost of capital.

Other insurance studies have included testimony before the Virginia Legislature regarding proper regulatory structure of Credit Life and P&C insurance; the effects on competition and pricing resulting from proposed insurance company mergers, maximum and minimum expense multiplier limits, determination of specific class code rate increase limits (swing limits); and investigation of the reasonableness of NCCI's administrative assigned risk plan and pool expenses.

GLENN A. WATKINS

IV. Anti-Trust and Commercial Business Damage Litigation

Analyses of alleged claims of attempts to monopolize, predatory pricing, unfair trade practices and economic losses. Assignments have involved definitions of relevant market areas (geographic and product) and performance of that market, the pricing and cost allocation practices of manufacturers, and the economic performance of manufacturers' distributors.

Performed and provided expert testimony relating to market impacts involving automobile and truck dealerships, incremental profitability, the present value of damages, diminution in value of business, market and dealer performance, future sales potential, optimal inventory levels, fair allocation of products, financial performance; and business valuations.

MEMBERSHIPS AND CERTIFICATIONS

Member, Association of Energy Engineers (1998)
Certified Rate of Return Analyst, Society of Utility and Regulatory Financial Analysts (1992)
Member, American Water Works Association
National Association of Business Economists
Richmond Association of Business Economists
National Economics Honor Society

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(SUMMARY)**

	Allocator	Total Company	Residential	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
Operating Income:						
Revenue						
Base Revenues		\$63,205,353	\$36,974,250	\$13,782,948	\$524,930	\$11,923,225
Rider GCR		\$90,267,316	\$55,514,753	\$31,060,527	\$2,718,229	\$973,807
Total Rate Schedule Revenue		\$153,472,669	\$92,489,003	\$44,843,475	\$3,243,159	\$12,897,032
Other Operating Revenue		\$1,902,299	\$1,112,818	\$414,827	\$15,799	\$358,855
Total Operating Revenue		\$155,374,968	\$93,601,821	\$45,258,302	\$3,258,958	\$13,255,887
Expenses:						
O&M Expenses		\$117,022,197	\$70,473,776	\$35,687,700	\$3,061,883	\$7,798,837
Depreciation		\$16,518,177	\$9,496,137	\$3,192,668	\$247,491	\$3,581,881
Taxes Other Than Income		\$4,662,683	\$2,502,441	\$948,361	\$75,768	\$1,136,114
Total Expense Before Income Tax		\$138,203,057	\$82,472,354	\$39,828,729	\$3,385,142	\$12,516,832
Operating Income Before Income Tax		\$17,171,911	\$11,129,467	\$5,429,573	(\$126,184)	\$739,055
Interest Expense		\$7,536,846	\$3,734,144	\$1,411,621	\$115,283	\$2,275,798
State Tax @ 6.00%		\$578,104	\$443,719	\$241,077	(\$14,488)	(\$92,205)
Federal @ 35.00%		\$3,169,936	\$2,433,061	\$1,321,906	(\$79,443)	(\$505,588)
Net Operating Income		\$13,423,871	\$8,252,687	\$3,866,590	(\$32,253)	\$1,336,848
Total Rate Base		\$252,914,290	\$125,306,852	\$47,369,834	\$3,868,561	\$76,369,043
Rate of Return		5.31%	6.59%	8.16%	-0.83%	1.75%
Indexed Rate of Return		124%	154%	-16%	33%	

ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)

Acct. No.	Allocator	Total Company	Residential	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
Intangible Plant:						
30100	10	\$8,330	\$4,332	\$1,521	\$121	\$2,356
30200	10	\$119,853	\$62,337	\$21,878	\$1,734	\$33,903
30300		\$0				
Total Intangible Plant: \$128,182 \$66,669 \$23,399 \$1,855 \$36,260						
Production Plant:						
32520	4	\$2,353	\$1,007	\$452	\$41	\$853
32540	4	\$83,422	\$35,695	\$16,044	\$1,444	\$30,239
33100	4	\$3,492	\$1,494	\$672	\$60	\$1,266
33201	4	\$47,163	\$20,180	\$9,070	\$817	\$17,096
33202	4	\$528,218	\$226,017	\$101,587	\$9,145	\$191,469
33400	4	\$192,384	\$82,319	\$36,999	\$3,331	\$69,736
33600	4	\$44,369	\$18,985	\$8,533	\$768	\$16,083
Total Production Plant \$901,402 \$385,698 \$173,358 \$15,606 \$326,741						
Storage Plant:						
35010	55	\$261,127	\$96,764	\$45,448	\$4,220	\$114,695
35020	55	\$4,682	\$1,735	\$815	\$76	\$2,056
35100	55	\$17,916	\$6,639	\$3,118	\$290	\$7,869
35102	55	\$153,261	\$56,793	\$26,674	\$2,477	\$67,317
35103	55	\$23,138	\$8,574	\$4,027	\$374	\$10,163
35104	55	\$137,443	\$50,931	\$23,921	\$2,221	\$60,369
35200	55	\$4,442,222	\$1,646,129	\$773,145	\$71,793	\$1,951,155
35201	55	\$1,340,863	\$496,876	\$233,370	\$21,670	\$588,946
35202	55	\$455,309	\$168,721	\$79,244	\$7,359	\$199,985
35203	55	\$1,694,833	\$628,045	\$294,976	\$27,391	\$744,421
35210	55	\$178,530	\$66,157	\$31,072	\$2,885	\$78,416

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)**

Acct. No.	Allocator	Total Company	Residential	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
35211	55	\$54,614	\$20,238	\$9,505	\$883	\$23,988
35301	55	\$178,497	\$66,145	\$31,066	\$2,885	\$78,401
35302	55	\$209,458	\$77,618	\$36,455	\$3,385	\$92,000
35400	55	\$923,446	\$342,196	\$160,721	\$14,924	\$405,605
35500	55	\$240,883	\$89,263	\$41,924	\$3,893	\$105,803
35600	55	<u>\$163,979</u>	<u>\$60,765</u>	<u>\$28,540</u>	<u>\$2,650</u>	<u>\$72,025</u>
Total Storage Plant						
		\$10,480,201	\$3,883,589	\$1,824,022	\$169,377	\$4,603,213
Transmission:						
36510	4	\$26,970	\$11,540	\$5,187	\$467	\$9,776
36520	4	\$867,772	\$371,308	\$166,890	\$15,024	\$314,551
36602	4	\$49,002	\$20,967	\$9,424	\$848	\$17,762
36603	4	\$60,826	\$26,027	\$11,698	\$1,053	\$22,048
36700	4	\$406,035	\$173,737	\$78,089	\$7,030	\$147,180
36701	4	\$27,830,935	\$11,908,481	\$5,352,446	\$481,834	\$10,088,175
36900	4	\$578,023	\$247,328	\$111,165	\$10,007	\$209,522
36901	4	<u>\$2,274,016</u>	<u>\$973,021</u>	<u>\$437,339</u>	<u>\$39,370</u>	<u>\$824,287</u>
Total Transmission Plant						
		\$32,093,579	\$13,732,408	\$6,172,237	\$555,632	\$11,633,301
Distribution:						
37400	56	\$531,819	\$174,343	\$84,949	\$7,564	\$264,964
37401	56	\$37,326	\$12,236	\$5,962	\$531	\$18,597
37402	56	\$253,401	\$83,071	\$40,476	\$3,604	\$126,250
37403	56	\$2,784	\$913	\$445	\$40	\$1,387
37500	56	\$343,073	\$112,467	\$54,800	\$4,879	\$170,926
37501	56	\$101,507	\$33,276	\$16,214	\$1,444	\$50,573
37502	56	\$46,591	\$15,274	\$7,442	\$663	\$23,213
37503	56	\$4,005	\$1,313	\$640	\$57	\$1,995
37600	56	\$11,318,115	\$3,710,341	\$1,807,871	\$160,975	\$5,638,929

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)**

Acct. No.	Allocator	Total Company	Residential	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
37601	Mains - Steel	\$97,584,394	\$0	\$0	\$0	\$0
	0.00% Customer	\$0	\$0	\$0	\$0	\$0
	***** Demand	\$97,584,394	\$31,990,428	\$15,587,401	\$1,387,917	\$48,618,647
37602	Mains - Plastic	\$65,722,013	\$0	\$0	\$0	\$0
	0.00% Customer	\$0	\$0	\$0	\$0	\$0
	***** Demand	\$65,722,013	\$21,545,201	\$10,497,943	\$934,747	\$32,744,123
37800	Meas & Reg. Sta. Equip - General	\$5,367,160	\$1,759,479	\$857,310	\$76,336	\$2,674,035
37900	Meas & Reg. Sta. Equip - City Gate	\$2,272,991	\$745,139	\$363,071	\$32,328	\$1,132,453
37905	Meas & Reg. Sta. Equipment T.b.	\$1,394,628	\$457,191	\$222,767	\$19,835	\$694,834
38000	Services	\$98,853,417	\$87,835,826	\$10,780,267	\$113,954	\$123,371
38100	Meters	\$22,574,136	\$13,562,205	\$7,593,305	\$704,186	\$714,441
38200	Meter Installations	\$49,157,106	\$29,532,857	\$16,535,068	\$1,533,424	\$1,555,757
38300	House Regulators	\$7,239,801	\$4,349,565	\$2,435,265	\$225,841	\$229,130
38400	House Reg. Installations	\$154,276	\$92,687	\$51,894	\$4,813	\$4,883
38500	Ind. Meas. & Reg. Sta. Equipment	\$5,045,015	\$0	\$0	\$0	\$5,045,015
38600	Other Prop. On Cust. Prem	\$0	\$0	\$0	\$0	\$0
	Total Distribution Plant	\$368,003,558	\$196,013,811	\$66,943,090	\$5,213,136	\$99,833,521
	General:					
38900	Land & Land Rights	\$786,216	\$408,921	\$143,518	\$11,376	\$222,400
39000	Structures & Improvements	\$3,619,684	\$1,882,645	\$660,749	\$52,374	\$1,023,916
39001	Structures Frame	\$0	\$0	\$0	\$0	\$0
39002	Structures-Brick	\$178,755	\$92,973	\$32,631	\$2,586	\$50,565
39003	Improvements	\$725,022	\$377,093	\$132,348	\$10,490	\$205,090
39004	Air Conditioning Equipment	\$7,461	\$3,881	\$1,362	\$108	\$2,111
39009	Improvement to leased Premises	\$1,279,376	\$665,420	\$233,542	\$18,511	\$361,903
39100	Office Furniture & Equipment	\$1,475,298	\$767,322	\$269,306	\$21,346	\$417,324
39102	Remittance Processing Equip	\$0	\$0	\$0	\$0	\$0
39103	Office Machines	\$0	\$0	\$0	\$0	\$0
39200	Transportation Equipment	\$395,444	\$205,676	\$72,186	\$5,722	\$111,861
39201	Trucks	\$0	\$0	\$0	\$0	\$0

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)**

Acct. No.	Allocater	Total Company	Residential	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
39202	10	\$33,192	\$17,264	\$6,059	\$480	\$9,389
39300	10	\$0	\$0	\$0	\$0	\$0
39400	10	\$2,197,415	\$1,142,904	\$401,123	\$31,795	\$621,592
39600	10	\$0	\$0	\$0	\$0	\$0
39603	10	\$53,704	\$27,932	\$9,803	\$777	\$15,191
39604	10	\$62,747	\$32,636	\$11,454	\$908	\$17,750
39605	10	\$33,236	\$17,286	\$6,067	\$481	\$9,402
39700	10	\$376,277	\$195,707	\$68,687	\$5,444	\$106,439
39701	10	\$0	\$0	\$0	\$0	\$0
39702	10	\$0	\$0	\$0	\$0	\$0
39705	10	\$66,316	\$34,492	\$12,105	\$960	\$18,759
39800	10	\$2,521,971	\$1,311,711	\$460,369	\$36,491	\$713,401
39800	10	\$0	\$0	\$0	\$0	\$0
39901	10	\$175,990	\$91,535	\$32,126	\$2,546	\$49,783
39902	10	\$73,566	\$38,263	\$13,429	\$1,064	\$20,810
39903	10	\$0	\$0	\$0	\$0	\$0
39904	10	\$0	\$0	\$0	\$0	\$0
39905	10	\$0	\$0	\$0	\$0	\$0
39906	10	\$195,649	\$101,760	\$35,715	\$2,831	\$55,344
39907	10	\$0	\$0	\$0	\$0	\$0
39908	10	\$0	\$0	\$0	\$0	\$0
39909	10	\$0	\$0	\$0	\$0	\$0
39924	10	\$0	\$0	\$0	\$0	\$0
Total General Plant						
		\$14,257,320	\$7,415,420	\$2,602,579	\$206,291	\$4,033,030
TOTAL DIRECT PLANT						
		\$425,864,243	\$221,497,595	\$77,738,685	\$6,161,897	\$120,466,066
CWIP w/o AFUDC						
	10	\$7,949,586	\$4,134,684	\$1,451,144	\$115,024	\$2,248,734

Kentucky Mid-States General Office:

Intangible Plant:

ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)

Acct. No.	Allocator	Total Company	Residential	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
30100	10	\$92,661	\$48,194	\$16,915	\$1,341	\$26,211
30200		\$0				
30300	10	<u>\$554,814</u>	<u>\$288,566</u>	<u>\$101,278</u>	<u>\$8,028</u>	<u>\$156,943</u>
		\$647,474	\$336,760	\$118,192	\$9,368	\$183,154
Total Intangible Plant:						
General:						
37400	10	\$0	\$0	\$0	\$0	\$0
39001	10	\$89,675	\$46,641	\$16,370	\$1,298	\$25,367
39004	10	\$2,886	\$1,501	\$527	\$42	\$816
39009	10	\$19,418	\$10,100	\$3,545	\$281	\$5,493
39100	10	\$44,069	\$22,921	\$8,044	\$638	\$12,466
39200	10	\$2,055	\$1,069	\$375	\$30	\$581
39300	10	\$2,081	\$1,082	\$380	\$30	\$589
39400	10	\$71,284	\$37,076	\$13,012	\$1,031	\$20,164
39600	10	\$9,768	\$5,080	\$1,783	\$141	\$2,763
39700	10	\$19,000	\$9,882	\$3,468	\$275	\$5,375
39800	10	\$412,511	\$214,553	\$75,301	\$5,969	\$116,689
39900	10	\$38,499	\$20,024	\$7,028	\$557	\$10,890
39901	10	\$172,108	\$89,516	\$31,417	\$2,490	\$48,685
39902	10	\$4,137	\$2,152	\$755	\$60	\$1,170
39903	10	\$108,270	\$56,313	\$19,764	\$1,567	\$30,627
39906	10	\$341,887	\$177,820	\$62,409	\$4,947	\$96,711
39907	10	\$0	\$0	\$0	\$0	\$0
39908	10	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
		\$1,337,649	\$695,729	\$244,179	\$19,355	\$378,386
Total General Plant						
	10	\$169,180	\$87,993	\$30,883	\$2,448	\$47,857
CWIP w/o AFUDC						
Shared Services General Office:						

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)**

Acct. No.	Allocator	Total Company	Residential	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
General:						
39000	10	\$6,927	\$3,603	\$1,264	\$100	\$1,959
39005	10	\$128,243	\$66,701	\$23,410	\$1,856	\$36,277
39009	10	\$516,609	\$268,695	\$94,304	\$7,475	\$146,135
39100	10	\$530,191	\$275,759	\$96,783	\$7,671	\$149,977
39102	10	\$0	\$0	\$0	\$0	\$0
39103	10	\$0	\$0	\$0	\$0	\$0
39104	10	\$893	\$464	\$163	\$13	\$253
39200	10	\$5,503	\$2,862	\$1,004	\$80	\$1,557
39300	10	\$0	\$0	\$0	\$0	\$0
39400	10	\$14,142	\$7,355	\$2,581	\$205	\$4,000
39500	10	\$2,347	\$1,221	\$428	\$34	\$664
39700	10	\$158,860	\$82,625	\$28,999	\$2,299	\$44,937
39800	10	\$21,546	\$11,206	\$3,933	\$312	\$6,095
39900	10	\$9,006	\$4,684	\$1,644	\$130	\$2,548
39901	10	\$1,668,562	\$867,841	\$304,585	\$24,143	\$471,993
39902	10	\$858,974	\$446,764	\$156,800	\$12,429	\$242,982
39903	10	\$201,953	\$105,038	\$36,865	\$2,922	\$57,127
39904	10	\$0	\$0	\$0	\$0	\$0
39905	10	\$0	\$0	\$0	\$0	\$0
39906	10	\$145,811	\$75,838	\$26,617	\$2,110	\$41,246
39907	10	\$53,910	\$28,039	\$9,841	\$780	\$15,250
39908	10	\$5,761,472	\$2,996,617	\$1,051,718	\$83,364	\$1,629,773
39909	10	\$145,121	\$75,479	\$26,491	\$2,100	\$41,051
39924	10	\$0	\$0	\$0	\$0	\$0
Total General Plant			\$5,320,794	\$1,867,431	\$148,020	\$2,893,824
CWIP w/o AFUDC			\$186,120	\$65,322	\$5,178	\$101,225
Shared Services Customer Support:						

ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)

Acct. No.	Allocator	Total Company	Residential	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
General:						
38900	10	\$164,345	\$85,478	\$30,000	\$2,378	\$46,489
38910	10	\$14,993	\$7,798	\$2,737	\$217	\$4,241
39000	10	\$755,564	\$392,979	\$137,923	\$10,932	\$213,730
39009	10	\$259,245	\$134,837	\$47,323	\$3,751	\$73,334
39010	10	\$82,629	\$42,977	\$15,083	\$1,196	\$23,374
39100	10	\$65,363	\$33,996	\$11,932	\$946	\$18,490
39700	10	\$118,380	\$61,571	\$21,610	\$1,713	\$33,487
39710	10	\$2,158	\$1,122	\$394	\$31	\$610
39800	10	\$5,452	\$2,836	\$995	\$79	\$1,542
39900	10	\$0	\$0	\$0	\$0	\$0
39901	10	\$332,188	\$172,775	\$60,639	\$4,806	\$93,967
39902	10	\$154,557	\$80,387	\$28,213	\$2,236	\$43,720
39903	10	\$110,823	\$57,641	\$20,230	\$1,604	\$31,349
39906	10	\$71,420	\$37,146	\$13,037	\$1,033	\$20,203
39907	10	\$28,967	\$15,066	\$5,288	\$419	\$8,194
39908	10	\$5,586,709	\$2,905,721	\$1,019,816	\$80,835	\$1,580,336
39910	10	\$945	\$492	\$173	\$14	\$267
39916	10	\$1,541	\$802	\$281	\$22	\$436
39917	10	\$719	\$374	\$131	\$10	\$203
39924	10	\$0	\$0	\$0	\$0	\$0
Total General Plant			\$4,033,997	\$1,415,806	\$112,223	\$2,193,973
CWIP w/o AFUDC			\$33,901	\$11,898	\$943	\$18,438
TOTAL PLANT IN SERVICE			\$445,835,433	\$81,384,293	\$6,450,864	\$126,115,403
TOTAL CWIP W/O AFUDC			\$8,541,792	\$1,559,247	\$123,593	\$2,416,254

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)**

Acct. No.	Allocator	Total Company	Residential	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
Intangible Plant:						
30100	10	\$8,330	\$4,332	\$1,521	\$121	\$2,356
30200	10	\$119,853	\$62,337	\$21,878	\$1,734	\$33,903
30300		\$0	\$0	\$0	\$0	\$0
Total Intangible Plant: \$128,182 \$66,669 \$23,399 \$1,855 \$36,260						
Production Plant:						
32520	4	\$904	\$387	\$174	\$16	\$328
32540	4	\$12,963	\$5,547	\$2,493	\$224	\$4,699
33100	4	\$3,492	\$1,494	\$672	\$60	\$1,266
33201	4	\$47,163	\$20,180	\$9,070	\$817	\$17,096
33202	4	\$529,956	\$226,761	\$101,921	\$9,175	\$192,099
33400	4	\$191,854	\$82,092	\$36,897	\$3,322	\$69,543
33600	4	\$15,287	\$6,541	\$2,940	\$265	\$5,541
Total Production Plant: \$801,619 \$343,002 \$154,167 \$13,878 \$290,571						
Storage Plant:						
35010	55	\$0				
35020	55	\$4,682	\$1,735	\$815	\$76	\$2,056
35100	55	\$5,641	\$2,090	\$982	\$91	\$2,478
35102	55	\$122,115	\$45,252	\$21,254	\$1,974	\$53,637
35103	55	\$24,295	\$9,003	\$4,228	\$393	\$10,671
35104	55	\$141,034	\$52,262	\$24,546	\$2,279	\$61,946
35200	55	\$589,836	\$218,572	\$102,658	\$9,533	\$259,073
35201	55	\$1,182,091	\$438,041	\$205,737	\$19,104	\$519,209

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)**

Acct. No.	Allocator	Total Company	Residential	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
35202	55	\$573,862	\$212,653	\$99,877	\$9,275	\$252,057
35203	55	\$270,382	\$100,194	\$47,059	\$4,370	\$118,760
35210	55	\$178,619	\$66,190	\$31,088	\$2,887	\$78,455
35211	55	\$53,699	\$19,899	\$9,346	\$868	\$23,586
35301	55	\$187,422	\$69,452	\$32,620	\$3,029	\$82,321
35302	55	\$219,931	\$81,499	\$38,278	\$3,554	\$96,600
35400	55	\$388,075	\$143,807	\$67,542	\$6,272	\$170,454
35500	55	\$240,238	\$89,024	\$41,812	\$3,883	\$105,519
35600	55	\$163,999	\$60,772	\$28,543	\$2,650	\$72,033
Total Storage Plant		\$4,345,921	\$1,610,444	\$756,384	\$70,237	\$1,908,857
Transmission:						
36510	4	\$16	\$7	\$3	\$0	\$6
36520	4	\$434,585	\$185,953	\$83,579	\$7,524	\$157,529
36602	4	(\$1,441)	(\$617)	(\$277)	(\$25)	(\$522)
36603	4	\$60,585	\$25,924	\$11,652	\$1,049	\$21,961
36700	4	\$303,101	\$129,693	\$58,292	\$5,248	\$109,868
36701	4	\$17,004,632	\$7,276,052	\$3,270,331	\$294,399	\$6,163,850
36900	4	\$242,952	\$103,956	\$46,724	\$4,206	\$88,065
36901	4	\$1,805,542	\$772,567	\$347,242	\$31,259	\$654,474
Total Transmission Plant		\$19,849,972	\$8,493,534	\$3,817,547	\$343,660	\$7,195,230
Distribution:						
37400	56	\$57,145	\$18,733	\$9,128	\$813	\$28,471
37401	56	(\$7,250)	(\$2,377)	(\$1,158)	(\$103)	(\$3,612)
37402	56	\$57,120	\$18,725	\$9,124	\$812	\$28,458
37403	56	\$0	\$0	\$0	\$0	\$0
37500	56	\$101,365	\$33,230	\$16,191	\$1,442	\$50,502
37501	56	\$98,146	\$32,175	\$15,677	\$1,396	\$48,899

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)**

Acct. No.	Description	Allocator	Total Company	Commercial & Public Authority			Firm		Interruptible & Transportation
				Residential	Public Authority	Industrial	Industrial	Transportation	
37502	Land Rights	56	\$46,641	\$15,290	\$7,450	\$663		\$23,237	
37503	Improvements	56	\$1,092	\$358	\$174	\$16		\$544	
37600	Mains Catholic Protection	56	\$2,463,162	\$807,482	\$393,447	\$35,033		\$1,227,201	
37601	Mains - Steel	56	\$43,447,799	\$14,243,196	\$6,940,026	\$617,946		\$21,646,629	
37602	Mains - Plastic	56	\$13,236,019	\$4,339,074	\$2,114,223	\$188,252		\$6,594,470	
37800	Meas & Reg. Sta. Equip - General	56	\$1,727,152	\$566,200	\$275,882	\$24,565		\$860,504	
37900	Meas & Reg. Sta. Equip - City Gate	56	\$397,966	\$130,462	\$63,568	\$5,660		\$198,275	
37905	Meas & Reg. Sta. Equipment T.b.	56	\$1,207,742	\$395,926	\$192,916	\$17,177		\$601,723	
38000	Services	3	\$47,464,180	\$42,174,115	\$5,176,114	\$54,715		\$59,236	
38100	Meters	5	\$8,831,960	\$5,306,110	\$2,970,823	\$275,507		\$279,520	
38200	Meter Installations	5	\$10,090,016	\$6,061,931	\$3,393,998	\$314,752		\$319,336	
38300	House Regulators	5	\$3,231,320	\$1,941,329	\$1,086,925	\$100,799		\$102,267	
38400	House Reg. Installations	5	\$122,845	\$73,804	\$41,322	\$3,832		\$3,888	
38500	Ind. Meas. & Reg. Sta. Equipment	9	\$2,894,605	\$0	\$0	\$0		\$2,894,605	
38600	Other Prop. On Cust. Prem		\$0	\$0	\$0	\$0		\$0	
Total Distribution Plant			\$135,469,023	\$76,155,764	\$22,705,830	\$1,643,277		\$34,964,152	
General:									
38900	Land & Land Rights	10	\$25,654	\$13,343	\$4,683	\$371		\$7,257	
39000	Structures Frame	10	\$612,960	\$318,809	\$111,892	\$8,869		\$173,391	
39002	Improvements	10	\$179,032	\$93,117	\$32,681	\$2,590		\$50,643	
39003	Air Conditioning Equipment	10	\$538,256	\$279,954	\$98,255	\$7,788		\$152,259	
39004	Improvement to leased Premises	10	\$7,480	\$3,891	\$1,365	\$108		\$2,116	
39009	Office Furniture & Equipment	10	\$1,277,363	\$664,373	\$233,174	\$18,482		\$361,333	
39100	Remittance Processing Equip	10	\$280,045	\$145,655	\$51,120	\$4,052		\$79,217	
39103	Transportation Equipment	10	(\$107,598)	(\$55,963)	(\$19,641)	(\$1,557)		(\$30,437)	
39200	Trucks	10	\$403,130	\$209,673	\$73,589	\$5,833		\$114,035	
39201	Trailers	10	\$4,973	\$2,586	\$908	\$72		\$1,407	
39202	Stores Equipment	10	\$48,607	\$25,281	\$8,873	\$703		\$13,750	
39400	Power Operated Equipment	10	\$385,061	\$200,275	\$70,290	\$5,572		\$108,924	
39603	Backhoes	10	(\$161,532)	(\$84,015)	(\$29,487)	(\$2,337)		(\$45,693)	

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)**

Acct. No.	Allocater	Total Company	Residential	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
39604	10	(\$13,233)	(\$6,883)	(\$2,416)	(\$191)	(\$3,743)
39605	10	\$21,395	\$11,128	\$3,905	\$310	\$6,052
39700	10	(\$215,752)	(\$112,215)	(\$39,384)	(\$3,122)	(\$61,031)
39701	10	(\$22,087)	(\$11,488)	(\$4,032)	(\$320)	(\$6,248)
39702	10	(\$34,136)	(\$17,754)	(\$6,231)	(\$494)	(\$9,656)
39705	10	(\$122,518)	(\$63,723)	(\$22,365)	(\$1,773)	(\$34,657)
39800	10	\$581,115	\$302,246	\$106,079	\$8,408	\$164,383
39900	10	\$0	\$0	\$0	\$0	\$0
39901	10	\$175,990	\$91,535	\$32,126	\$2,546	\$49,783
39902	10	\$78,554	\$40,857	\$14,340	\$1,137	\$22,221
39903	10	\$0	\$0	\$0	\$0	\$0
39904	10	\$0	\$0	\$0	\$0	\$0
39905	10	\$0	\$0	\$0	\$0	\$0
39906	10	(\$2,045,235)	(\$1,063,754)	(\$373,344)	(\$29,593)	(\$578,545)
39907	10	\$0	\$0	\$0	\$0	\$0
39908	10	\$0	\$0	\$0	\$0	\$0
	10	\$119,747	\$62,282	\$21,859	\$1,733	\$33,873
	10	(\$4,706,121)	(\$2,447,716)	(\$859,071)	(\$68,094)	(\$1,331,241)
		(\$2,688,852)	(\$1,398,507)	(\$490,832)	(\$38,905)	(\$760,607)
		\$157,905,864	\$85,270,905	\$26,966,494	\$2,034,002	\$43,634,462
Kentucky Mid-States General Office:						
Intangible Plant:						
30100		\$0				
30200		\$0				
30300		\$0				
		\$0	\$0	\$0	\$0	\$0
Total Intangible Plant:						

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)**

Acct. No.	General:	Allocater	Total Company	Residential	Commercial & Public Authority		Firm Industrial	Interruptible & Transportation
					Public Authority	Industrial		
37400	Land & Land Rights	10	\$0	\$0	\$0	\$0	\$0	\$0
39001	Structures Frame	10	\$24,929	\$12,966	\$4,551	\$361	\$7,052	\$7,052
39004	Air Conditioning Equipment	10	\$2,886	\$1,501	\$527	\$42	\$816	\$816
39009	Improvement to leased Premises	10	\$24,544	\$12,766	\$4,480	\$355	\$6,943	\$6,943
39100	Office Furniture & Equipment	10	\$35,136	\$18,275	\$6,414	\$508	\$9,939	\$9,939
39200	Transportation Equipment	10	\$3,829	\$1,992	\$699	\$55	\$1,083	\$1,083
39300	Stores Equipment	10	\$1,785	\$929	\$326	\$26	\$505	\$505
39400	Tools, Shop & Garage Equipment	10	\$31,963	\$16,625	\$5,835	\$462	\$9,042	\$9,042
39600	Power Operated Equipment	10	\$7,737	\$4,024	\$1,412	\$112	\$2,189	\$2,189
39700	Communication Equipment	10	(\$6,551)	(\$3,407)	(\$1,196)	(\$95)	(\$1,853)	(\$1,853)
39800	Miscellaneous Equipment	10	\$222,014	\$115,473	\$40,527	\$3,212	\$62,802	\$62,802
39900	Other Tangible Property	10	\$38,499	\$20,024	\$7,028	\$557	\$10,890	\$10,890
39901	Other Tangible Property - Servers - H/W	10	\$101,983	\$53,043	\$18,616	\$1,476	\$28,848	\$28,848
39902	Other Tangible Property - Servers - S/W	10	\$5,759	\$2,995	\$1,051	\$83	\$1,629	\$1,629
39903	Other Tangible Property - Network - H/W	10	\$108,270	\$56,313	\$19,764	\$1,567	\$30,627	\$30,627
39906	Other Tang. Property - PC Hardware	10	(\$360,590)	(\$187,548)	(\$65,823)	(\$5,217)	(\$102,002)	(\$102,002)
39907	Other Tang. Property - PC Software	10	\$0	\$0	\$0	\$0	\$0	\$0
39908	Other Tang. Property - Mainframe S/W	10	\$521,687	\$271,336	\$95,231	\$7,548	\$147,572	\$147,572
	<u>Retirement Work in Progress</u>	10	<u>\$24,381</u>	<u>\$12,681</u>	<u>\$4,451</u>	<u>\$353</u>	<u>\$6,897</u>	<u>\$6,897</u>
	Total General Plant		\$788,261	\$409,985	\$143,892	\$11,405	\$222,979	\$222,979
	Shared Services General Office:							
	General:							
39000	Structures & Improvements	10	\$367	\$191	\$67	\$5	\$104	\$104
39005	G-Structures & Improvements	10	\$41,632	\$21,653	\$7,600	\$602	\$11,776	\$11,776
39009	Improvement to leased Premises	10	\$508,868	\$264,669	\$92,890	\$7,363	\$143,946	\$143,946
39100	Office Furniture & Equipment	10	\$336,303	\$174,916	\$61,390	\$4,866	\$95,132	\$95,132
39102	Remittance Processing Equip	10	\$325	\$169	\$59	\$5	\$92	\$92

ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)

Acct. No.	Description	Allocator	Total		Residential	Commercial & Public Authority		Firm Industrial	Interruptible & Transportation
			Company	Company		Public Authority	Industrial		
39103	Office Machines	10	\$160	\$83	\$29	\$2	\$45		
39104	G-Office Furniture & Equip.	10	\$111	\$58	\$20	\$2	\$31		
39200	Transportation Equipment	10	\$4,472	\$2,326	\$816	\$65	\$1,265		
39300	Stores Equipment	10	\$42	\$22	\$8	\$1	\$12		
39400	Tools, Shop & Garage Equipment	10	\$3,633	\$1,890	\$663	\$53	\$1,028		
39500	Laboratory Equipment	10	\$328	\$171	\$60	\$5	\$93		
39700	Communication Equipment	10	\$63,904	\$33,237	\$11,665	\$925	\$18,077		
39800	Miscellaneous Equipment	10	\$6,284	\$3,268	\$1,147	\$91	\$1,778		
39900	Other Tangible Property	10	\$4,450	\$2,314	\$812	\$64	\$1,259		
39901	Other Tangible Property - Servers - H/W	10	\$569,058	\$295,974	\$103,878	\$8,234	\$160,972		
39902	Other Tangible Property - Servers - S/W	10	\$318,108	\$165,452	\$58,069	\$4,603	\$89,985		
39903	Other Tangible Property - Network - H/W	10	\$118,878	\$61,830	\$21,700	\$1,720	\$33,627		
39904	Other Tang. Property - CPU	10	\$952	\$495	\$174	\$14	\$269		
39905	Other Tangible Property - MF - Hardware	10	\$855	\$445	\$156	\$12	\$242		
39906	Other Tang. Property - PC Hardware	10	\$128,525	\$66,847	\$23,461	\$1,860	\$36,356		
39907	Other Tang. Property - PC Software	10	\$47,912	\$24,920	\$8,746	\$693	\$13,553		
39908	Other Tang. Property - Mainframe S/W	10	\$3,980,772	\$2,070,452	\$726,663	\$57,598	\$1,126,058		
39909	Other Tang. Property - Application Software	10	\$151,394	\$78,742	\$27,636	\$2,191	\$42,825		
39924	Other Tang. Property - General Startup Costs	10	\$0	\$0	\$0	\$0	\$0		
	<u>Retirement Work in Progress</u>	10	<u>(\$9)</u>	<u>(\$5)</u>	<u>(\$2)</u>	<u>(\$0)</u>	<u>(\$2)</u>		
	Total General Plant		\$6,287,324	\$3,270,120	\$1,147,709	\$90,972	\$1,778,523		
	Shared Services Customer Support:								
	General:								
38900	Land		\$0						
38910	CKV-Land & Land Rights		\$0						
39000	Structures & Improvements	10	\$179,456	\$93,337	\$32,758	\$2,597	\$50,763		
39009	Improvement to leased Premises	10	\$211,810	\$110,165	\$38,664	\$3,065	\$59,916		
39010	CKV-Structures & Improvements	10	\$23,673	\$12,313	\$4,321	\$343	\$6,697		
39100	Office Furniture & Equipment	10	\$8,591	\$4,468	\$1,568	\$124	\$2,430		

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)**

Acct. No.	Description	Allocator	Total		Commercial & Public Authority		Firm Industrial		Interruptible & Transportation	
			Company	Residential	Public Authority	Industrial	Transportation	Interruptible & Transportation		
39700	Communication Equipment	10	(\$354,256)	(\$184,253)	(\$64,667)	(\$5,126)	(\$100,210)			
39710	CKV-Communication Equipment	10	\$629	\$327	\$115	\$9	\$178			
39800	Miscellaneous Equipment	10	\$203	\$106	\$37	\$3	\$58			
39900	Other Tangible Property	10	(\$59)	(\$31)	(\$11)	(\$1)	(\$17)			
39901	Other Tangible Property - Servers - HW	10	(\$130,340)	(\$67,792)	(\$23,793)	(\$1,886)	(\$36,870)			
39902	Other Tangible Property - Servers - SAW	10	(\$236,463)	(\$122,988)	(\$43,165)	(\$3,421)	(\$66,889)			
39903	Other Tangible Property - Network - HW	10	\$5,533	\$2,878	\$1,010	\$80	\$1,565			
39906	Other Tang. Property - PC Hardware	10	(\$6,303)	(\$3,278)	(\$1,150)	(\$91)	(\$1,783)			
39907	Other Tang. Property - PC Software	10	\$15,615	\$8,121	\$2,850	\$226	\$4,417			
39908	Other Tang. Property - Mainframe SAW	10	\$2,190,316	\$1,139,212	\$399,828	\$31,692	\$619,584			
39910	CKV-Other Tangible Property	10	\$212	\$110	\$39	\$3	\$60			
39916	CKV-Oth Tang Prop-PC Hardware	10	\$811	\$422	\$148	\$12	\$229			
39917	CKV-Oth Tang Prop-PC Software	10	\$232	\$121	\$42	\$3	\$66			
39924	Other Tang. Property - General Startup Costs	10	\$9	\$4	\$2	\$0	\$2			
	<u>Retirement Work in Progress</u>	10	<u>(\$1,356)</u>	<u>(\$706)</u>	<u>(\$248)</u>	<u>(\$20)</u>	<u>(\$384)</u>			
	Total General Plant		\$1,908,312	\$992,538	\$348,350	\$27,612	\$539,812			
	TOTAL RESERVE FOR DEPRECIATION		\$166,889,761	\$89,943,548	\$28,606,445	\$2,163,992	\$46,175,776			
Rate Base Additions:										
	Materials and Supplies - KY Direct	57	(\$9,437)	(\$5,248)	(\$1,642)	(\$123)	(\$2,424)			
	Materials and Supplies - KY Mid-States GO	57	\$68,287	\$37,974	\$11,882	\$889	\$17,542			
	Materials and Supplies - Shared Services GO		\$0							
	Materials and Supplies - Shared Services CS		\$0							
	Gas Storage Inventory	1	\$9,415,216	\$2,144,409	\$1,197,098	\$104,816	\$5,968,893			
	Prepayments - KY Direct	57	\$229,654	\$127,710	\$39,961	\$2,988	\$58,995			
	Prepayments - KY Mid-States GO	57	\$4,955	\$2,755	\$862	\$64	\$1,273			

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(RATE BASE)**

Acct. No.	Allocater	Total Company	Commercial & Public Authority			Firm		Interruptible & Transportation
			Residential	Public Authority	Industrial	Industrial	Transportation	
	57	\$748,194	\$416,070	\$130,188	\$9,736	\$192,200		
Prepayments - Shared Services GO	57	\$271,559	\$151,014	\$47,252	\$3,534	\$69,760		
Prepayments - Shared Services CS	57	\$3,337,211	\$1,855,818	\$580,687	\$43,425	\$857,282		
Cash Working Capital								
Total Rate Base Additions		\$14,065,639	\$4,730,502	\$2,006,288	\$165,329	\$7,163,520		
Rate Base Deductions:								
Customer Advances - KY Direct	3	(\$2,745,576)	(\$2,439,571)	(\$299,413)	(\$3,165)	(\$3,427)		
Customer Advances - KY Mid-States GO		\$0						
Customer Advances - Shared Services GO		\$0						
Customer Advances - Shared Services CS		\$0						
ADIT - KY Direct	19	(\$71,043,224)	(\$36,174,075)	(\$13,427,655)	(\$1,089,904)	(\$20,351,591)		
ADIT - KY Mid-States GO	19	\$20,040,473	\$10,204,289	\$3,787,786	\$307,449	\$5,740,949		
ADIT - Shared Services GO	19	(\$1,541,599)	(\$784,958)	(\$291,373)	(\$23,650)	(\$441,618)		
ADIT - Shared Services CS	19	\$6,651,113	\$3,386,640	\$1,257,106	\$102,037	\$1,905,329		
Total Rate Base Deductions		(\$48,638,813)	(\$25,807,674)	(\$8,973,549)	(\$707,232)	(\$13,150,358)		
TOTAL OTHER RB		(\$34,573,174)	(\$21,077,172)	(\$6,967,261)	(\$541,904)	(\$5,986,838)		
Interest on Customer Deposits		\$0						
Total Rate Base		\$252,914,290	\$125,306,852	\$47,369,834	\$3,868,561	\$76,369,043		

ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(EXPENSES)

Acct. No.	Description	Allocator	Total Company	Commercial & Firm			Interruptible & Transportation
				Public Authority	Industrial	Commercial & Firm	
	Production & Gathering:						
	Operation						
7500	Op., Sup., & Eng.		\$0				
7510	Production Maps & Records		\$0				
7530	Field Lines Expenses		\$0				
7540	Field Compressor Station Expense		\$0				
7550	Field Compressor Sta. Fuel & Pwr.		\$0				
7560	Field Meas. & Regul. Station Exp		\$0				
7570	Purification Expense		\$0				
7590	Other Expenses		\$0				
	Maintenance						
7610	Maint. Sup., & Eng.		\$0				
7620	Structures and Improvements		\$0				
7640	Field Line Maintenance		\$0				
7650	Compressor Station Equip. Maint.		\$0				
7660	Meas. & Regul. Station Equip Maint		\$0				
7670	Purification Equipment Maintenance		\$0				
7680	Other Equipment Maintenance		\$0				
7690	Gas Processed By Others		\$0				
	Total Production & Gathering		\$0				
	Other Gas Supply Expenses:						
	Operation						
8001	Intercompany Gas Well-head Purchases	50	\$2,392,628	\$1,471,476	\$823,291	\$72,049	\$25,812
8010	Natural gas field line purchases	50	\$1,391,896	\$856,021	\$478,944	\$41,914	\$15,016
8040	Natural Gas City Gate Purchases	50	\$45,614,740	\$28,053,244	\$15,695,801	\$1,373,601	\$492,094
8045	Transportation to City Gate	50	\$0	\$0	\$0	\$0	\$0
8050	Transmission-Operation supervision and engineering	50	(\$14,067)	(\$8,651)	(\$4,840)	(\$424)	(\$152)
8051	Other Gas Purchases / Gas Cost Adjustments	50	\$56,021,426	\$34,453,396	\$19,276,689	\$1,686,979	\$604,361
8052	PGA for Commercial	50	\$26,327,213	\$16,191,339	\$9,059,061	\$792,794	\$284,019
8053	PGA for Industrial	50	\$5,265,345	\$3,238,208	\$1,811,779	\$158,556	\$56,803
8054	PGA for Public Authority	50	\$6,496,020	\$3,995,078	\$2,235,248	\$195,615	\$70,079
8057	PGA for Transportation Sales	50	\$0	\$0	\$0	\$0	\$0
8058	Unbilled PGA Costs	50	(\$3,827,283)	(\$2,353,794)	(\$1,316,949)	(\$115,251)	(\$41,289)
8059	PGA Offset to Unrecovered Gas Cost	50	(\$103,417,562)	(\$63,602,206)	(\$35,585,460)	(\$3,114,224)	(\$1,115,672)
8060	Exchange Gas	50	\$7,289,206	\$4,482,890	\$2,508,179	\$219,501	\$78,636
8081	Gas Withdrawn From Storage - Debit	50	\$26,869,335	\$16,524,746	\$9,245,602	\$809,119	\$289,867
8082	Gas Delivered to Storage	50	(\$15,161,906)	(\$9,324,632)	(\$5,217,135)	(\$456,572)	(\$163,567)
8110	Gas used for products extraction-Credit	50	\$0	\$0	\$0	\$0	\$0

ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(EXPENSES)

Acct. No.	Description	Allocator	Total				Interruption & Transportation
			Company	Residential	Commercial & Public Authority	Firm Industrial	
8120	Gas Used for Other Utility Operations	50	(\$17,621)	(\$10,837)	(\$6,063)	(\$531)	(\$190)
8130	Other Gas Supply Expenses	50	(\$5)	(\$3)	(\$2)	(\$0)	(\$0)
8580	Transmission and compression of gas by others	50	\$35,035,880	\$21,547,203	\$12,055,669	\$1,055,039	\$377,968
	Maintenance						
8350	Maint. Of Purch. Gas Meas. Sta.		\$0				
	Total Other Gas Supply Expenses		\$90,265,245	\$55,513,479	\$31,059,814	\$2,718,167	\$973,785
	Underground Storage:						
	Operation						
8140	Op., Sup., & Eng.	55	(\$1,062)	(\$394)	(\$185)	(\$17)	(\$466)
8150	Maps & Records	55	\$0	\$0	\$0	\$0	\$0
8160	Wells Expense	55	\$169,618	\$62,854	\$29,521	\$2,741	\$74,501
8170	Lines Expense	55	\$60,954	\$22,587	\$10,609	\$985	\$26,773
8180	Compressor Station Expense	55	\$24,924	\$9,236	\$4,338	\$403	\$10,947
8190	Compressor Station Fuel & Power	55	\$777	\$288	\$135	\$13	\$341
8200	Meas. & Regul. Station Expenses	55	\$4,790	\$1,775	\$834	\$77	\$2,104
8210	Purification Expenses	55	\$34,456	\$12,768	\$5,997	\$557	\$15,134
8240	Other	55	\$223	\$83	\$39	\$4	\$98
8250	Storage Well Royalties	55	\$13,900	\$5,151	\$2,419	\$225	\$6,105
	Maintenance						
8300	Maint. Sup., & Eng.	55	\$10,314	\$3,822	\$1,795	\$167	\$4,530
8310	Structures and Improvements	55	\$0	\$0	\$0	\$0	\$0
8320	Reservoirs & Wells Maintenance	55	\$0	\$0	\$0	\$0	\$0
8330	Line Maintenance	55	\$0	\$0	\$0	\$0	\$0
8340	Compressor Station Equip Maint	55	\$5,064	\$1,877	\$881	\$82	\$2,224
8350	Meas. & Regul. Station Equip Maint	55	\$0	\$0	\$0	\$0	\$0
8360	Purification Equipment Maintenance	55	\$736	\$273	\$128	\$12	\$323
8370	Other Equipment Maintenance	55	\$0	\$0	\$0	\$0	\$0
	Total Underground Storage Expense		\$324,694	\$120,320	\$56,511	\$5,248	\$142,615
	Transmission:						
	Operation						
8500	Op., Sup., & Eng.		\$0				
8510	System Control & Load Dispatching		\$0				
8520	Communication Systems Expense		\$0				
8530	Compressor Station Labor Expense		\$0				
8540	Compressor Station Fuel Gas		\$0				
8550	Compressor Station Fuel & Power		\$0				
8560	Mains Expense	4	\$499,729	\$213,827	\$96,108	\$8,652	\$181,142

ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(EXPENSES)

Acct. No.	Description	Allocator	Total					
			Company	Residential	Public Authority	Commercial & Industrial	Firm	Interruptible & Transportation
8950	Maintenance of Other Equipment		\$0	\$0	\$0	\$0	\$0	\$0
	Total Distribution		\$6,178,098	\$3,126,170	\$1,124,297	\$89,669	\$1,837,962	
	Customer Accounts:							
9010	Supervision	3	(\$202)	(\$179)	(\$22)	(\$0)	(\$0)	(\$0)
9020	Meter Reading Expense	3	\$1,321,394	\$1,174,120	\$144,102	\$1,523	\$1,649	\$1,649
9030	Customer Records and Collection Expenses	3	\$357,551	\$317,701	\$38,992	\$412	\$446	\$446
9040	Uncollectible Accounts	3	\$324,479	\$288,315	\$35,385	\$374	\$405	\$405
9050	Miscellaneous Customer Accounts Expenses	3	\$0	\$0	\$0	\$0	\$0	\$0
	Total Customer Accounts		\$2,003,222	\$1,779,955	\$218,457	\$2,309	\$2,500	\$2,500
	Customer Service and Information:							
9070	Supervision		\$0					
9080	Customer Assistance Expenses		\$0					
9090	Informational and Instructional Advertising Expenses	3	\$133,918	\$118,992	\$14,604	\$154	\$167	\$167
9100	Miscellaneous Customer Service and Informational Expenses		\$0	\$0	\$0	\$0	\$0	\$0
	Total Customer Service and Information		\$133,918	\$118,992	\$14,604	\$154	\$167	\$167
	Sales:							
9110	Supervision	3	\$218,372	\$194,034	\$23,814	\$252	\$273	\$273
9120	Demonstrating and Selling Expenses	3	\$86,711	\$77,047	\$9,456	\$100	\$108	\$108
9130	Advertising Expenses	3	\$10,934	\$9,715	\$1,192	\$13	\$14	\$14
9160	Miscellaneous Sales Expenses		\$0	\$0	\$0	\$0	\$0	\$0
	Total Sales		\$316,017	\$280,796	\$34,463	\$364	\$394	\$394
	Administrative & General:							
	Operation							
9200	Administrative and General Salaries	44	\$394,702	\$234,679	\$65,192	\$4,511	\$90,320	\$90,320
9210	Office Supplies and Expenses	44	(\$1,391)	(\$827)	(\$230)	(\$16)	(\$318)	(\$318)
9220	Administrative Expenses Transferred - Customer Support	10	\$13,071,350	\$6,798,581	\$2,386,088	\$189,131	\$3,697,549	\$3,697,549
9220	Administrative Expenses Transferred - General	44	\$0	\$0	\$0	\$0	\$0	\$0
9230	Outside Services Employed	44	\$158,905	\$94,481	\$26,246	\$1,816	\$36,362	\$36,362
9240	Property Insurance	19	\$74,698	\$38,035	\$14,118	\$1,146	\$21,399	\$21,399
9250	Injuries and Damages	44	\$18,686	\$11,110	\$3,086	\$214	\$4,276	\$4,276
9260	Employee Pensions and Benefits	44	\$3,269,740	\$1,944,100	\$540,053	\$37,371	\$748,216	\$748,216
9270	Franchise Requirements	3	\$2,840	\$2,523	\$310	\$3	\$4	\$4
9280	Regulatory Commission Expenses	3	\$111,840	\$99,375	\$12,196	\$129	\$140	\$140
930.1	General Advertising Expenses	3	\$0	\$0	\$0	\$0	\$0	\$0
930.2	Miscellaneous General Expense	44	\$39,537	\$23,508	\$6,530	\$452	\$9,047	\$9,047

ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(EXPENSES)

Acct. No.	Allocator	Total				
		Company	Residential	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
9310	44	\$36,305	\$21,586	\$5,996	\$415	\$8,308
			\$0	\$0	\$0	\$0
9320		\$17,177,212	\$9,267,152	\$3,059,586	\$235,172	\$4,615,302
		\$17,022,197	\$70,473,776	\$35,687,700	\$3,061,883	\$7,798,837
TOTAL O&M EXPENSE						

CLASSIFICATION OF DEPRECIATION EXPENSE

Intangible Plant:						
30100	Organization	\$0				
30200	Franchises & Consents	\$0				
30300	Misc Intangible Plant	\$0				
Total Intangible Plant: \$0						
Production Plant:						
32520	Producing Leaseholds	\$51	\$22	\$10	\$1	\$18
32540	Rights of Ways	\$1,699	\$727	\$327	\$29	\$616
33100	Production Gas Wells Equipment	\$0	\$0	\$0	\$0	\$0
33201	Field Lines	\$0	\$0	\$0	\$0	\$0
33202	Tributary Lines	\$0	\$0	\$0	\$0	\$0
33400	Field Meas. & Reg. Sta. Equip	\$3,001	\$1,284	\$577	\$52	\$1,088
33600	Purification Equipment	\$996	\$426	\$192	\$17	\$361
Total Production Plant \$5,747 \$2,459 \$1,105 \$99 \$2,083						
Storage Plant:						
35010	Land	\$0				
35020	Rights of Way	\$0				
35100	Structures and Improvements	\$293	\$109	\$51	\$5	\$129
35102	Compression Station Equipment	\$1,704	\$631	\$297	\$28	\$748
35103	Meas. & Reg. Sta. Structures	\$0	\$0	\$0	\$0	\$0
35104	Other Structures	\$0	\$0	\$0	\$0	\$0
35200	Wells \ Rights of Way	\$82,144	\$30,440	\$14,297	\$1,328	\$36,080

ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(EXPENSES)

Acct. No.	Locator	Total Company	Commercial & Firm			Interruption & Transportation
			Residential	Public Authority	Industrial	
35201	Well Construction	\$19,039	\$7,055	\$3,314	\$308	\$8,362
35202	Well Equipment	\$0	\$0	\$0	\$0	\$0
35203	Cushion Gas	\$29,356	\$10,878	\$5,109	\$474	\$12,894
35210	Leaseholds	\$0	\$0	\$0	\$0	\$0
35211	Storage Rights	\$382	\$142	\$66	\$6	\$168
35301	Field Lines	\$0	\$0	\$0	\$0	\$0
35302	Tributary Lines	\$0	\$0	\$0	\$0	\$0
35400	Compressor Station Equipment	\$15,086	\$5,590	\$2,626	\$244	\$6,626
35500	Meas & Reg. Equipment	\$1,742	\$646	\$303	\$28	\$765
35600	Purification Equipment	\$110	\$41	\$19	\$2	\$48
	Total Storage Plant	\$149,856	\$55,531	\$26,082	\$2,422	\$65,821
	Transmission:					
36510	Land & Land Rights	\$0				
36520	Rights of Way	\$13,066	\$5,591	\$2,513	\$226	\$4,736
36602	Structures & Improvements	\$887	\$380	\$171	\$15	\$322
36603	Other Structures	\$734	\$314	\$141	\$13	\$266
36700	Mains Cathodic Protection	\$19,980	\$8,549	\$3,843	\$346	\$7,242
36701	Mains - Steel	\$578,413	\$247,495	\$111,240	\$10,014	\$209,664
36900	Meas. & Reg. Equipment	\$12,003	\$5,136	\$2,308	\$208	\$4,351
36901	Meas. & Reg. Equipment	\$45,879	\$19,631	\$8,823	\$794	\$16,630
	Total Transmission Plant	\$670,962	\$287,096	\$129,039	\$11,616	\$243,211
	Distribution:					
37400	Land & Land Rights	\$0				
37401	Land	\$0				
37402	Land Rights	\$4,289	\$1,406	\$685	\$61	\$2,137
37403	Land Other	\$0	\$0	\$0	\$0	\$0
37500	Structures & Improvements	\$7,321	\$2,400	\$1,169	\$104	\$3,647
37501	Structures & Improvements T.B.	\$2,168	\$711	\$346	\$31	\$1,080
37502	Land Rights	\$0	\$0	\$0	\$0	\$0
37503	Improvements	\$86	\$28	\$14	\$1	\$43
37600	Mains Cathodic Protection	\$556,692	\$182,497	\$88,922	\$7,918	\$277,356
37601	Mains - Steel	\$2,345,591	\$768,939	\$374,667	\$33,361	\$1,168,624
37602	Mains - Plastic	\$1,564,702	\$512,946	\$249,934	\$22,254	\$779,568

ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(EXPENSES)

Acct. No.	Description	Allocator	Total		Commercial & Firm			Interruptible &	
			Company	Public Authority	Industrial	Transportation	Commercial & Firm	Interruptible &	
37800	Meas & Reg. Sta. Equip - General	56	\$161,845	\$53,057	\$25,852	\$2,302	\$80,635		
37900	Meas & Reg. Sta. Equip - City Gate	56	\$58,890	\$19,306	\$9,407	\$838	\$29,340		
37905	Meas & Reg. Sta. Equipment T.b.	56	\$36,252	\$11,884	\$5,791	\$516	\$18,052		
38000	Services	3	\$4,473,918	\$3,975,283	\$487,894	\$5,157	\$5,584		
38100	Meters	5	\$1,773,300	\$1,065,372	\$596,488	\$55,317	\$56,123		
38200	Meter Installations	5	\$2,132,918	\$1,281,425	\$717,454	\$66,535	\$67,504		
38300	House Regulators	5	\$235,602	\$141,546	\$79,250	\$7,349	\$7,456		
38400	House Reg. Installations	5	\$3,841	\$2,308	\$1,292	\$120	\$122		
38500	Ind. Meas. & Reg. Sta. Equipment	9	\$157,854	\$0	\$0	\$0	\$157,854		
38600	Other Prop. On Cust. Prem		\$0	\$0	\$0	\$0	\$0		
	Total Distribution Plant		\$13,515,269	\$8,019,107	\$2,639,165	\$201,864	\$2,655,134		
	General:								
38900	Land & Land Rights		\$0						
39000	Structures Frame	10	\$131,359	\$68,322	\$23,979	\$1,901	\$37,158		
39002	Improvements		\$0						
39003	Air Conditioning Equipment	10	\$26,900	\$13,991	\$4,910	\$389	\$7,609		
39004	Improvement to leased Premises		\$0						
39009	Office Furniture & Equipment	10	\$30,239	\$15,728	\$5,520	\$438	\$8,554		
39100	Remittance Processing Equip	10	\$96,791	\$50,342	\$17,669	\$1,400	\$27,380		
39103	Transportation Equipment		\$0						
39200	Trucks		\$0						
39201	Trailers		\$0						
39202	Stores Equipment		\$0						
39400	Power Operated Equipment		\$135,043	\$70,238	\$24,651	\$1,954	\$38,200		
39603	Backhoes	10	\$8,234	\$4,283	\$1,503	\$119	\$2,329		
39604	Welders	10	\$9,621	\$5,004	\$1,756	\$139	\$2,722		
39605	Communication Equipment	10	\$5,096	\$2,650	\$930	\$74	\$1,442		
39700	Communication Equipment - Mobile Radios	10	\$24,702	\$12,848	\$4,509	\$357	\$6,988		
39701	Communication Equipment - Fixed Radios		\$0						
39702	Communication Equip. - Telemetering		\$0						
39705	Miscellaneous Equipment		\$8,360	\$4,348	\$1,526	\$121	\$2,365		
39800	Other Tangible Property	10	\$125,081	\$65,056	\$22,833	\$1,810	\$35,382		
39900	Other Tangible Property - Servers - H/W		\$0						
39901	Other Tangible Property - Servers - S/W		\$0						
39902	Other Tangible Property - Network - H/W		\$0						
39903	Other Tang. Property - CPU		\$0						

ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(EXPENSES)

Acct. No.	Allocator	Total Company	Commercial & Firm			Interruption & Transportation
			Residential	Public Authority	Industrial	
39906	10	\$65,546	\$34,091	\$11,965	\$948	\$18,541
39907		\$0				
39908		\$0				\$0
Total General Plant						
		\$114,335	\$59,467	\$20,871	\$1,654	\$32,342
Shared Services General Office:						
General:						
39000	10	\$225	\$117	\$41	\$3	\$64
39005	10	\$4,283	\$2,228	\$782	\$62	\$1,212
39009	10	\$20,929	\$10,885	\$3,820	\$303	\$5,920
39100	10	\$21,361	\$11,110	\$3,899	\$309	\$6,042
39102		\$0				
39103		\$0				
39104	10	\$36	\$19	\$7	\$1	\$10
39200	10	\$1,594	\$829	\$291	\$23	\$451
39300		\$0				
39400	10	\$1,246	\$648	\$227	\$18	\$352
39500	10	\$230	\$120	\$42	\$3	\$65
39700	10	\$8,744	\$4,548	\$1,596	\$127	\$2,473
39800	10	\$371	\$193	\$68	\$5	\$105
39900	10	\$1,246	\$648	\$227	\$18	\$352
39901	10	\$142,944	\$74,347	\$26,093	\$2,068	\$40,435
39902	10	\$75,232	\$39,129	\$13,733	\$1,089	\$21,281
39903	10	\$17,633	\$9,171	\$3,219	\$255	\$4,988
39904		\$0				
39905	10	\$0				
39906	10	\$12,779	\$6,647	\$2,333	\$185	\$3,615
39907	10	\$3,650	\$1,898	\$666	\$53	\$1,032
39908	10	\$376,695	\$195,924	\$68,763	\$5,450	\$106,557
39909		\$0				
39924		\$0				\$0
Total General Plant						
		\$689,198	\$358,461	\$125,809	\$9,972	\$194,956

ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(EXPENSES)

Acct. No.	Description	Allocator	Total				Commercial & Public Authority		Firm		Interruption & Transportation
			Company	Residential	Industrial	Public Authority	Commercial & Public Authority	Industrial			
Shared Services Customer Support:											
General:											
38900	Land		\$0								
38910	CKV-Land & Land Rights		\$0								
39000	Structures & Improvements	10	\$25,234	\$13,125	\$4,606	\$365	\$7,138				
39009	Improvement to leased Premises	10	\$10,518	\$5,471	\$1,920	\$152	\$2,975				
39010	CKV-Structures & Improvements	10	\$2,760	\$1,436	\$504	\$40	\$781				
39100	Office Furniture & Equipment	10	\$2,634	\$1,370	\$481	\$38	\$745				
39700	Communication Equipment	10	\$6,558	\$3,411	\$1,197	\$95	\$1,855				
39710	CKV-Communication Equipment	10	\$120	\$62	\$22	\$2	\$34				
39800	Miscellaneous Equipment	10	\$91	\$47	\$17	\$1	\$26				
39900	Other Tangible Property		\$0								
39901	Other Tangible Property - Servers - H/W	10	\$28,635	\$14,893	\$5,227	\$414	\$8,100				
39902	Other Tangible Property - Servers - SW	10	\$13,570	\$7,058	\$2,477	\$196	\$3,839				
39903	Other Tangible Property - Network - H/W	10	\$9,438	\$4,909	\$1,723	\$137	\$2,670				
39906	Other Tang. Property - PC Hardware	10	\$6,134	\$3,190	\$1,120	\$89	\$1,735				
39907	Other Tang. Property - PC Software	10	\$1,922	\$1,000	\$351	\$28	\$544				
39908	Other Tang. Property - Mainframe SW	10	\$366,672	\$190,711	\$66,934	\$5,305	\$103,722				
39910	CKV-Other Tangible Property	10	\$130	\$68	\$24	\$2	\$37				
39916	CKV-Oth Tang Prop-PC Hardware	10	\$135	\$70	\$25	\$2	\$38				
39917	CKV-Oth Tang Prop-PC Software	10	\$48	\$25	\$9	\$1	\$14				
39924	Other Tang. Property - General Startup Costs		\$0	\$0	\$0	\$0	\$0				
Total General Plant			\$474,599	\$246,845	\$86,635	\$6,867	\$134,252				
TOTAL DEPRECIATION EXPENSE			\$16,518,177	\$9,496,137	\$3,192,668	\$247,491	\$3,581,881				
Taxes Other Than Income											
Non Revenue Related:											
57	Payroll Related		\$366,438	\$203,776	\$63,762	\$4,768	\$94,133				
10	Property Related		\$3,403,337	\$1,770,120	\$621,257	\$49,243	\$962,717				
58	DOT transmission User Tax		\$52,950	\$22,657	\$10,183	\$917	\$19,193				
14	Other		\$620,764	\$373,840	\$189,311	\$16,242	\$41,370				
Total Non Revenue Related:			\$4,443,489	\$2,370,393	\$884,513	\$71,171	\$1,117,413				

ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(EXPENSES)

Acct No.	Allocator	Company	Total			
			Residential	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
Revenue Related:						
		\$0				
		\$0				
	48	\$219,194	\$132,048	\$63,848	\$4,598	\$18,701
		\$219,194	\$132,048	\$63,848	\$4,598	\$18,701
		\$4,662,683	\$2,502,441	\$948,361	\$75,768	\$1,136,114
Total Taxes, Other Than Income						
	51	\$7,536,846	\$3,734,144	\$1,411,621	\$115,283	\$2,275,798
Interest Expense:						

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(REVENUES)**

	Allocator	Total				
		Company	Residential	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
Rate Schedule Revenue:						
Base Revenues	Dir	\$63,205,353	\$36,974,250	\$13,782,948	\$524,930	\$11,923,225
Base Revenue Increase		\$0				
Rider GCR	Dir	\$90,267,316	\$55,514,753	\$31,060,527	\$2,718,229	\$973,807
<u>Rider FF and Rider Tax</u>		\$0				
Total Rate Schedule Revenue		\$153,472,669	\$92,489,003	\$44,843,475	\$3,243,159	\$12,897,032
Other Revenue:						
Forfeited Discounts	49	\$1,126,126	\$658,768	\$245,570	\$9,353	\$212,435
Misc. Service Revenues	49	\$778,251	\$455,266	\$169,710	\$6,463	\$146,811
Revenue From Transportation of Gas of Others	49	(\$2,078)	(\$1,216)	(\$453)	(\$17)	(\$392)
<u>NTB</u>						
Total Non-Rate Revenue		\$1,902,299	\$1,112,818	\$414,827	\$15,799	\$358,855
TOTAL REVENUE		\$155,374,968	\$93,601,821	\$45,258,302	\$3,258,958	\$13,255,887

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(ALLOCATE PERCENT)**

		Total	Commercial & Public Authority	Firm Industrial	Interruptible & Transportation
	Allocators	Company	Residential	Industrial	Transportation
Mcf	1	100.0000%	22.7760%	1.1133%	63.3962%
Winter Volumes	2	100.0000%	31.3242%	1.5010%	51.5978%
Customers	3	100.0000%	88.8546%	0.1153%	0.1248%
Peak Day	4	100.0000%	42.7886%	1.7313%	36.2481%
Meter Investment	5	100.0000%	60.0785%	3.1194%	3.1649%
Direct to Residential	6	100.0000%	100.0000%	0.0000%	0.0000%
Direct to Commercial & Public Authority	7	100.0000%	0.0000%	0.0000%	0.0000%
Direct to Industrial	8	100.0000%	0.0000%	100.0000%	0.0000%
Direct to I & T	9	100.0000%	0.0000%	0.0000%	100.0000%
P, S, T & D Plant	10	100.0000%	52.0113%	1.4469%	28.2874%
Peak & Average	11	100.0000%	32.7823%	1.4223%	49.8222%
Acct. 378 - General (Net Plant)	12	100.0000%	32.7823%	1.4223%	49.8222%
Acct. 378 - City Gate (Net Plant)	13	100.0000%	32.7823%	1.4223%	49.8222%
Allocated O&M Expenses	14	100.0000%	60.2226%	2.6165%	6.6644%
Allocated O&M Expenses - Cust	15				
Allocated O&M Expenses - Demand	16				
Allocated O&M Expenses - Comm	17				
Customer Deposit Balances	18	100.0000%	70.8888%	0.0000%	0.0000%
Allocated Net Plant	19	100.0000%	50.9184%	1.5341%	28.6468%
Allocated Net Plant - Cust	20				
Allocated Net Plant - Demand	21				
Allocated Net Plant - Comm	22				
Composite of Accts. 871-879 & 886-894	23	100.0000%	50.6008%	1.4514%	29.7496%
Composite of Accts. 871-879 & 886-893 - Cust	24				
Composite of Accts. 871-879 & 886-893 - Demand	25				
Composite of Accts. 871-879 & 886-893 - Comm	26				
Composite of Accts. 376 & 380	27	100.0000%	50.0507%	1.0198%	34.5171%
Composite of Accts. 376 & 380 - Cust	28				
Composite of Accts. 376 & 380 - Demand	29				
Composite of Accts. 376 & 380 - Comm	30				
Composite of Accts. 374-379	31	100.0000%	32.7823%	1.4223%	49.8222%
Composite of Accts. 374-379 - Cust	32				
Composite of Accts. 374-379 - Demand	33				
Composite of Accts. 374-379 - Comm	34				
Composite of Accts. 381-383	35				
Composite of Accts. 381-383 - Cust	36				
Composite of Accts. 381-383 - Demand	37				

**ATMOS OF KENTUCKY
CLASS COST OF SERVICE STUDY
AG PEAK & AVERAGE METHOD
(ALLOCATE PERCENT)**

	Allocator	Total					Interruptible & Transportation
		Company	Residential	Commercial & Public Authority	Firm Industrial		
Composite of Accts. 381-383 - Comm	38						
Account 380	39						
Account 380 - Cust	40						
Account 380 - Demand	41						
Account 380 - Comm	42						
GUD 9400 Allocation Factors	43	100.0000%	0.0004%	0.0001%	0.0000%	99.9995%	
Composite of Accts. 870-902, 905-916, 924 & 928-930.1	44	100.0000%	59.4573%	16.5167%	1.1429%	22.8830%	
Composite of Accts. 870-902, 905-916, 924 & 928-930.1 - Cust	45						
Composite of Accts. 870-902, 905-916, 924 & 928-930.1 - Dema	46						
Composite of Accts. 870-902, 905-916, 924 & 928-930.1 - Comr	47						
Total Revenue	48	100.0000%	60.2425%	29.1284%	2.0975%	8.5315%	
Base Revenues	49	100.0000%	58.4986%	21.8066%	0.8305%	18.8643%	
Gas Costs	50	100.0000%	61.5004%	34.4095%	3.0113%	1.0788%	
Rate Base	51	100.0000%	49.5433%	18.7291%	1.5295%	30.1981%	
Rate Base - Cust	52						
Rate Base - Demand	53						
Rate Base - Comm	54						
50% Peak Demand/ 50% Winter MCF	55	100.0000%	37.0564%	17.4045%	1.6162%	43.9229%	
Distribution Mains (Acct 376)	56	100.0000%	32.7823%	15.9733%	1.4223%	49.8222%	
O&M Excluding Gas Costs and Uncollectibles	57	100.0000%	55.5069%	17.3731%	1.2988%	25.8211%	
Transmission Plant (Net)	58	100.0000%	42.7886%	19.2320%	1.7313%	36.2481%	
	59						
Memo: Peak & Avg	60						
50.00%	61	50.0000%	21.3943%	9.6160%	0.8656%	18.1240%	
50.00%	62	50.0000%	11.3880%	6.3573%	0.5566%	31.6981%	
	63	100.0000%	32.7823%	15.9733%	1.4223%	49.8222%	

PUBLIC VERSION
SCHEDULE GAW-3

ATMOS OF KENTUCKY
Discounted Rates 1/

Customer	(1) Rate (MCF)	(2) Effective Since	(3) Distance To Pipeline (Feet)	(4) Purchase Gas From Atmos Affiliates	(5) Annual MCF	(6) Full Tariff Revenues	(7) Actual Revenues	(8) Discount
[REDACTED]								
TOTAL					\$13,509,751	\$7,581,301	\$1,471,776	\$6,109,525

1/ Per Confidential AG Data Request 1-212.

**Atmos of Kentucky
Comparison of Atmos and AG Proposed Class Revenue and Rate Designs**

Rate Schedule	Units	Current Revenue			Atmos Proposed			AG Proposed				
		Rate	Revenue	Increase	Rate	Revenue	Increase	Rate	Revenue	Increase		
Residential												
Res (G-1)												
Cust	1,846,837	\$14.28	\$26,372,832		\$16.00	\$29,549,392	\$3,176,560	12.04%	\$14.28	\$26,372,832	\$0	0.00%
1-300	9,637,652	\$1.1000	\$10,601,417		\$1.6320	\$15,728,648	\$5,127,231	48.36%	\$1.6438	\$15,842,178	\$5,240,761	49.43%
301-15,000	0	\$0.7700	\$0		\$0.8800	\$0	\$0		\$0.8800	\$0	\$0	
> 15,000	0	\$0.5000	\$0		\$0.6200	\$0	\$0		\$0.6200	\$0	\$0	
Total Res			\$36,974,250			\$45,278,040	\$8,303,791	22.46%		\$42,215,010	\$5,240,761	14.17%
Comm/ Pub Auth												
Firm Comm/PA (G-1)												
Cust	226,666	\$35.70	\$8,091,976		\$40.00	\$9,066,640	\$974,664	12.04%	\$35.70	\$8,091,976	\$0	0.00%
1-300	4,691,716	\$1.1000	\$5,160,888		\$1.6320	\$7,656,881	\$2,495,993	48.36%	\$1.6438	\$7,712,148	\$2,551,261	49.43%
301-15,000	688,421	\$0.7700	\$530,084		\$0.8800	\$605,810	\$75,726	14.29%	\$0.8800	\$605,810	\$75,726	14.29%
> 15,000	0	\$0.5000	\$0		\$0.6200	\$0	\$0		\$0.6200	\$0	\$0	
Total Comm (G-1)			\$13,782,948			\$17,329,331	\$3,546,383	25.73%		\$16,409,935	\$2,626,987	19.06%
Firm Ind												
Firm Ind (G-1)												
Cust	2,396	\$35.70	\$85,537		\$40.00	\$95,840	\$10,303	12.04%	\$35.70	\$85,537	\$0	0.00%
1-300	235,050	\$1.1000	\$258,555		\$1.6320	\$383,602	\$125,047	48.36%	\$1.6438	\$386,370	\$127,815	49.43%
301-15,000	232,688	\$0.7700	\$179,170		\$0.8800	\$204,765	\$25,596	14.29%	\$0.8800	\$204,765	\$25,596	14.29%
> 15,000	3,337	\$0.5000	\$1,668		\$0.6200	\$2,069	\$400	24.00%	\$0.6200	\$2,069	\$400	24.00%
Total Ind (G-1)			\$24,930			\$38,278	\$16,146	30.74%		\$678,742	\$153,812	29.30%
Interrupt/ Transport												
Interrupt Sales (G-2)												
Cust	129	\$344.07	\$44,385		\$350.00	\$45,150	\$765	1.72%				
1-15,000	203,770	\$0.6870	\$139,990		\$0.7920	\$161,386	\$21,396	15.28%				
> 15,000	7,873	\$0.4670	\$3,677		\$0.5310	\$4,181	\$504	13.70%				
Total Int Sales (G-2)			\$168,052			\$210,716	\$22,665	12.05%			\$39,481	20.99%
Firm Transport (T-4)												
Firm Transport (T-4)												
Cust	1,458	\$328.33	\$478,705		\$350.00	\$510,300	\$31,595	6.60%				
Admin Fee			\$71,750			\$71,750	\$0	0.00%				
EFM Fee			\$64,125			\$64,125	\$0	0.00%				
Parking Fee			\$1,791			\$1,791	\$0	0.00%				
1-300	419,682	1.193	\$500,681		1.632	\$684,921	\$184,240	36.80%				
301-15,000	4,937,962	0.8351	\$4,123,692		0.88	\$4,345,407	\$221,714	5.38%				
> 15,000	702,807	0.5423	\$381,132		0.62	\$435,740	\$54,608	14.33%				
Total Firm Trans (T-4)			\$5,621,876			\$6,114,034	\$492,158	8.75%		\$6,802,180	\$1,180,304	20.99%

Atmos of Kentucky
Comparison of Atmos and AG Proposed Class Revenue and Rate Designs

	Current Revenue		Atmos Proposed		AG Proposed	
		Base	Base	Increase	Base	Increase
Interrupt Trans (T-3)						
Cust	791	\$329,24	\$350.00	\$276,850	\$16,421	6.31%
Admin Fee		\$39,550		\$39,550	\$0	0.00%
EFM Fee		\$31,950		\$31,950	\$0	0.00%
Parking Fee		\$4,558		\$4,558	\$0	0.00%
1 -15,000	4,849,485	\$0.6822	\$0.7920	\$3,840,792	\$532,473	16.09%
> 15,000	2,237,100	\$0.4440	\$0.5310	\$1,187,900	\$194,628	19.59%
Total Interrupt Trans (T-3)		\$4,638,078	\$5,381,600	\$743,522	\$5,611,835	\$973,757 20.99%
Special Contracts						
Cust	216	\$300.00	\$300.00	\$64,800	\$0	0.00%
Admin Fee		\$10,375		\$10,375	\$0	0.00%
EFM Fee		\$9,725		\$9,725	\$0	0.00%
Parking Fee		\$17,352		\$17,352	\$0	0.00%
Volume	13,467,418	\$1,372,968	\$1,372,968	\$1,372,968	\$0	0.00%
Total Special Contracts		\$1,475,220	\$1,475,220	\$0	\$4,529,983	\$3,054,763 Imputed
Total Rate Revenue		\$63,205,354	\$76,475,218	\$13,269,864	\$76,475,218	\$13,269,864 20.99%
Other Revenue		\$1,904,377	\$2,001,549	\$97,172	\$2,001,549	\$97,172 5.10%
Total Revenue		\$65,109,731	\$78,476,767	\$13,367,036	\$78,476,767	\$13,367,036 20.53%

SCHEDULE GAW-5

ATMOS OF KENTUCKY
AG Determination of Residential Customer Costs

	W/ Profit Provision	W/O Metering Costs	
Gross Plant:			
Services	\$87,835,826	\$87,835,826	
Meters	\$13,562,205		
Meter Installations	\$29,532,857		
House Regulators	\$4,349,565	\$4,349,565	
House Regulator Installations	\$92,687	\$92,687	
Total Gross Plant	\$135,373,140	\$92,278,078	
Depreciation Reserve:			
Services	\$42,174,115	\$42,174,115	
Meters	\$5,306,110		
Meter Installations	\$6,061,931		
House Regulators	\$1,941,329	\$1,941,329	
House Regulator Installations	\$73,804	\$73,804	
Total Depreciation Reserve	\$55,557,289	\$44,189,248	
Total Net Plant	\$79,815,851	\$48,088,830	
Operation & Maintenance Expenses:			
Oper Meter & House Reg	\$491,683		
Oper Customer Install Exp	\$18,094	\$18,094	
Maint Services	\$43,229	\$43,229	
Maint Meters & House Reg	\$8,768		
Meter Reading Expense	\$1,174,120		
Cust. Records & Collection Exp.	\$317,701	\$317,701	
Total O & M Expenses	\$2,053,595	\$379,024	
Depreciation Expense:			
Services	\$3,975,283	\$3,975,283	
Meters	\$1,065,372		
Meter Installations	\$1,281,425		
House Regulators	\$141,546	\$141,546	
House Regulator Installations	\$2,308	\$2,308	
Total Depreciation Expense	\$6,465,934	\$4,119,137	
Revenue Requirement:			
Interest @ 6.19%	\$2,381,370	\$1,434,769	
Equity return @9.00%	\$3,721,015	\$2,241,901	
Federal Tax @ 35%	\$2,003,623	\$1,207,178	
State Tax @ 6.00%	\$365,402	\$220,154	
O & M Expenses	\$2,053,595	\$379,024	
Depreciation Expense	\$6,465,934	\$4,119,137	
Subtotal Revenue Requirement	\$16,990,940	\$9,602,163	
Uncollectible @ 0.5622%	\$113,264	\$54,945	
Total Revenue requirement	\$17,104,204	\$9,657,108	
Number of Bills	1,846,837	1,846,837	
Monthly Cost	\$9.26	\$5.23	
Cost of Capital			
	PCT	Cost	WGHT Cost
Debt	48.20%	6.19%	2.98%
Common	51.80%	9.00%	4.66%
Total	100.00%		7.65%

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

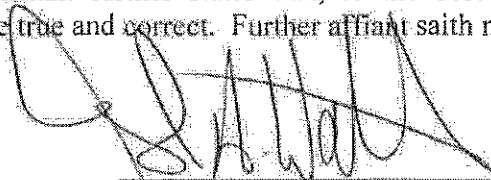
In the Matter of:

APPLICATION FOR AN ADJUSTMENT)
OF RATES AND TARIFF MODIFICATIONS) CASE NO. 2013-00148
OF ATMOS ENERGY CORPORATION,)
KENTUCKY DIVISION)

AFFIDAVIT OF GLENN A. WATKINS

State of Virginia)
City of Richmond)

Glenn A. Watkins, being first duly sworn, states the following: The prepared Pre-Filed Direct Testimony and the Schedules attached thereto constitute the direct testimony of Affiant in the above-styled case. Affiant states that he would give the answers set forth in the Pre-Filed Direct Testimony if asked the questions propounded therein. Affiant further states that, to the best of his knowledge, his statements made are true and correct. Further affiant saith not.



Glenn A. Watkins

SUBSCRIBED AND SWORN to before me this 8th day of October, 2013.


NOTARY PUBLIC

My Commission Expires: 10-31-14

My Commission ID#: 7315146

