

**BEFORE THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS**

**IN THE MATTER OF THE APPLICATION)
OF ATMOS ENERGY CORPORATION)
FOR ADJUSTMENT OF ITS NATURAL) **DOCKET NO. 23-ATMG-359-RTS**
GAS RATES IN THE STATE OF KANSAS)**

**DIRECT TESTIMONY AND SCHEDULES OF
GLENN A. WATKINS**

**RE: CLASS COST OF SERVICE
CLASS REVENUE ALLOCATION
AND
RESIDENTIAL RATE DESIGN**

**ON BEHALF OF
THE CITIZENS' UTILITY RATEPAYER BOARD**

JANUARY 17, 2023

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1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is Glenn A. Watkins. My business address is 6377 Mattawan Trail,
4 Mechanicsville, Virginia 23116.

5

6 **Q. What is your professional and educational background?**

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

12 During my career at Technical Associates, I have conducted marginal and
13 embedded cost of service, rate design, cost of capital, revenue requirement, and load
14 forecasting studies involving numerous electric, gas, water/wastewater, and telephone
15 utilities. I have provided expert testimony on more than 250 occasions in Alabama,
16 Arizona, Delaware, Georgia, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland,
17 Massachusetts, Michigan, Montana, Nevada, New Jersey, North Carolina, Ohio,
18 Pennsylvania, Vermont, Virginia, South Carolina, Washington, and West Virginia.

19 I hold an M.B.A. and B.S. in economics from Virginia Commonwealth University
20 and am a Certified Rate of Return Analyst. A more complete description of my education
21 and experience as well as a list of my prior testimonies is provided in my Schedule GAW-

22 1.

1 **Q. Have you previously provided testimony before this Commission?**

2 A. Yes. I have provided testimony before this Commission on several occasions including a
3 recent Black Hills Energy general rate case (Docket No. 21-BHCG-418-RTS), Southern
4 Pioneer Electric Company (Docket No. 20-SPEE-169-RTS), Kansas Gas Services' general
5 rate cases (Docket Nos. 18-KGSG-560-RTS and 16-KGSG-491-RTS), and the most recent
6 Atmos Energy Corporation general rate case (Docket No. 19-ATMG-525-RTS) on behalf
7 of the Citizens' Utility Ratepayer Board ("CURB").

8
9 **Q. What is the purpose of your testimony in this proceeding?**

10 A. Technical Associates, Inc. has been engaged by CURB to investigate and evaluate Atmos
11 Energy Corporation's ("Company" or "Atmos") class cost of service study ("CCOSS"),
12 class revenue allocations, and proposed Residential rate design. The purpose of my
13 testimony is to present the findings of my investigation and offer my recommendations to
14 the Commission in these areas.

15
16 **Q. Please provide a summary of your recommendations.**

17 A. Company witness Paul Raab's CCOSS does not reasonably reflect cost incurrence across
18 rate schedules, and as a result, is significantly biased against Residential customers
19 primarily due to two factors. First, Mr. Raab assigns a significant portion of distribution
20 mains based simply on number of customers, and second, he assigns virtually no
21 transmission or distribution mains costs to Interruptible customers. As a result, I have
22 conducted my CCOSS utilizing what is known as the Peak & Average ("P&A") method
23 that produces significantly different results across rate schedules.

1 Based primarily on his CCOSS results, Mr. Raab proposes to assign the Company's
2 requested revenue increase to only three rate schedules. As a result of my CCOSS and also
3 giving some consideration to Mr. Raab's study, I recommend a more fair and equitable
4 distribution of the Company's proposed increase.

5 With regard to Residential rate design, I recommend that the fixed customer charge
6 be reduced from the current level of \$18.89 per month to \$17.08 per month.

7
8 **II. CLASS COST OF SERVICE**

9 **Q. Please briefly explain the concept of a CCOSS and its purpose in a rate proceeding.**

10 A. Because the majority of a public utility's plant investment and expense is incurred to serve
11 all customers in a joint manner, most costs cannot be specifically attributed to a particular
12 customer or group of customers. Therefore, the costs jointly incurred to serve all or most
13 customers must be allocated across specific customers or customer rate classes. To the
14 extent that certain costs can be specifically attributed to a particular customer or group of
15 customers, these costs are directly assigned in the CCOSS.

16 It is generally accepted that to the extent possible, joint costs should be allocated to
17 customer classes based on the concept of cost causation. That is, costs are allocated to
18 customer classes based on analyses that measure the causes of the incurrence of costs to
19 the utility. Although the cost analyst strives to abide by this concept to the greatest extent
20 practical, some categories of costs, such as corporate overhead costs, cannot be attributed
21 to specific exogenous measures or factors, and must be subjectively assigned or allocated
22 to customer rate classes. With regard to those costs to which causation can be attributed,
23 there is often disagreement among cost of service experts on what is an appropriate cost

1 causation measure or factor; e.g., peak demand, energy or throughput usage, number of
2 customers, etc.

3

4 **Q. In your opinion, how should the results of a CCOSS be utilized in the ratemaking**
5 **process?**

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

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

18

19 **Q. Have the higher courts opined on the usefulness of cost allocations for purposes of**
20 **establishing revenue responsibility and rates?**

21 A. Yes. In an important regulatory case involving Colorado Interstate Gas Company and the
22 Federal Power Commission (predecessor to the Federal Energy Regulatory Commission),
23 the United States Supreme Court stated:

1 But where as here several classes of services have a common use of the
2 same property, difficulties of separation are obvious. Allocation of costs is
3 not a matter for the slide-rule. It involves judgment on a myriad of facts. It
4 has no claim to an exact science.¹
5

6 **Q. Does your opinion, and the findings of the U.S. Supreme Court, imply that cost**
7 **allocations should play no role in the ratemaking process?**

8 A. Not at all. It simply means that regulators should consider the fact that cost allocation
9 results are not surgically precise and that alternative, yet equally defensible, approaches
10 may produce significantly different results. In this regard, when all cost allocation
11 approaches consistently show that certain classes are over- or under-contributing to costs
12 and/or profits, there is a strong rationale for assigning smaller or greater percentage rate
13 increases to these classes. On the other hand, if one cost allocation approach shows
14 dramatically different results than another approach, caution should be exercised in
15 assigning disproportionately larger or smaller percentage increases to the classes in
16 question.
17

18 **Q. With regard to the practice of relying upon class cost of service studies in establishing**
19 **class revenue responsibility, has this Commission provided guidance relating to the**
20 **usefulness of individual CCOS?**

21 A. Yes. In a KCPL rate case (Docket No. 12-KCPE-764-RTS), the Commission found:

22 66. Under the principle of cost causation adopted by the Kansas courts, one
23 class of customers should not bear the costs created by another class. Absent
24 a reasonable basis, the Commission may not order a discriminatory rate
25 design. A class cost of service (CCOS) study is designed to allocate the
26 utility's total system cost of service to the various customer classes. There

¹*Colorado Interstate Gas Co. v. Federal Power Commission*, 324 U.S. 581, 590 (1945).

1 is no single, universally accepted method for allocating costs to customer
2 classes. Footnotes omitted. [Order, p. 23]
3

4 **Q. Please explain the basic concepts of cost allocations for public utilities generally and**
5 **for natural gas distribution companies (“NGDCs”) specifically.**

6 A. As I mentioned earlier, the majority of a NGDC’s plant investment serves customers in a
7 joint manner. In this regard, the NGDC’s infrastructure is a system benefiting all
8 customers. If all customers were the same size and had identical usage characteristics, cost
9 allocation would be simple (even unnecessary). However, in reality, a utility’s customer
10 base is not so simple. There are small usage customers and large usage customers, and
11 these customers (or customer groups) tend to vary greatly in the amount of service required
12 throughout the year. Therefore, differences in usage should be considered. Because
13 different groups of customers also utilize the system at varying degrees during the year,
14 consideration should also be given to the demands placed on the system during peak usage
15 periods.
16

17 **Q. With regard to NGDCs, is there any aspect of class cost allocations that tends to**
18 **overshadow other issues or is often controversial?**

19 A. Yes. For virtually every NGDC, the largest single rate base item (account) is distribution
20 mains. Furthermore, several other rate base and operating income accounts are typically
21 allocated to classes based on the previous assignment of distribution mains. Therefore, the
22 methods and approaches used to allocate distribution mains to classes are usually by far
23 the most important (in terms of class rate of return [“ROR”] results) and tend to be the most
24 controversial.

1 **Q. What methods are commonly used to allocate natural gas distribution mains?**

2 A. While a myriad of cost allocation methods and approaches have been developed, three
3 methods predominate in the NGDC industry: “Peak Responsibility,” “Peak and Average”
4 (“P&A”) (also known as “Demand/Commodity” or “Demand/Energy”), and
5 “Customer/Demand,” which I will address shortly in more detail. These methods differ in
6 the criteria used to allocate mains, as cost allocation analysts do not universally agree on
7 the cost causative factors or drivers influencing mains investments. There are three criteria
8 generally considered when selecting a mains cost allocation method: peak demand
9 (whether coincident, non-coincident, or actual or design day); annual (average day) usage;
10 and number of customers. Because a NGDC system must be capable of supplying gas to
11 its firm customers during peak demand periods (i.e., on very cold days), relative class peak
12 day demands are often considered a good proxy for measuring the cost causation of mains
13 investment.² Annual (or average day) throughput is also often used to allocate mains as
14 this factor reflects the utilization of a utility’s mains investment. Number of customers is
15 also sometimes considered when allocating mains. That is, customer counts by class serve
16 as a basis for allocation of mains. Even though annual levels of usage and peak load
17 requirements vary greatly between customer classes (residential versus large industrial),
18 some analysts are of the opinion that customer counts should be considered because at least
19 some infrastructure investment in mains is required simply to “connect” every customer to
20 the system. With these three criteria identified, various methods weigh and utilize these
21 criteria differently within the cost allocation process. In other words, some methods rely

² 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 is relevant.

1 on only one criterion while others consider two or more criteria with varying weights given
2 to each factor utilized.

3 As mentioned previously, the three most common NGDC cost allocation methods
4 are the “Peak Responsibility” method (whether coincident or class non-coincident), in
5 which peak day demands are the only factor utilized to allocate mains; the “P&A” or
6 “Demand/Commodity” approach, in which both peak day and annual (average day)
7 throughput is reflected within the allocation of mains;³ and the Customer/Demand method,
8 which utilizes a combination of peak day demands and customer counts to assign mains
9 cost responsibility.

10 Under the Customer/Demand method, the weight given to class customer counts
11 and peak day demands is determined from a separate analysis using one of two approaches:
12 minimum-size and zero-intercept. The “minimum-size” approach prices the entire system
13 footage of mains at the cost per foot of the smallest diameter pipe installed. This
14 “minimum-size” cost is then divided by the actual total investment in mains to determine
15 the weight given to customer counts. One (1) minus the customer percentage is then given
16 to the peak day demand within the allocation process. Under the zero-intercept approach,
17 statistical linear regression techniques are used to estimate the cost of a theoretical “zero
18 size” main. Similar to the minimum-size approach, the cost of this estimated zero size
19 pipe per foot is multiplied by the total system footage and is then divided by total mains
20 investment to arrive at a customer weighting.

³ Under the P&A or Demand/Commodity approach, peak use and annual throughput are either weighted equally or based on system load factor, where load factor is the ratio of average daily usage to peak day usage. When using a load factor approach to weight P&A 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 **Q. What method did Company witness Paul Raab use to classify and allocate Atmos’**
2 **distribution mains?**

3 A. Mr. Raab employed the Customer/Demand method to classify distribution mains as
4 36.33% customer-related and 63.67% demand-related. With regard to the allocation of the
5 36.33% of customer-related distribution mains, these are allocated across rate schedules
6 based simply on number of customers. With regard to his allocation of the 63.67% of the
7 demand-related distribution mains, Mr. Raab allocated this amount based on class non-
8 coincident peak (“NCP”) demands.⁴

9
10 **Q. On page 6 of his direct testimony, Mr. Raab claims that “the Company’s level of**
11 **investment in distribution mains is driven by the maximum demand that customers**
12 **place on the system, but that there is also a minimum level of investments in**
13 **distribution mains that would be necessary regardless of the level of such demands.”**
14 **Do you agree with this assertion?**

15 A. No. Mr. Raab claims that distribution mains investment is driven only by two factors:
16 design day demands and number of customers. While I agree that class contributions to
17 peak demands should be considered within the allocation process, Atmos’ distribution
18 mains were not installed simply to meet customers’ demands on a single peak day, but
19 rather, to serve their energy needs throughout the year.

20 With regard to Mr. Raab’s assertion that there is a minimum level of investments
21 in distribution mains that would be necessary regardless of the level of such demands, Mr.
22 Raab is of the opinion that there is a “ready to serve” component of distribution mains. In

⁴ However, Mr. Raab’s testimony insinuates that he has utilized coincident peak (design day) demands. For examples, see: page 7, lines 11-14; page 9, lines 9-12; page 9, lines 16-22; and, page 15, lines 13-15.

1 other words, Mr. Raab claims that Atmos must be ready to serve all customers even if these
2 customers have no usage.

3
4 **Q. Does Mr. Raab's ready to serve assertion conflict with Atmos' own tariff as it relates**
5 **to the Company's mains extension rules?**

6 A. Most definitely. The Company's approved tariff Schedule I: Rules and Regulations,
7 Section B-Distribution Main Extension Policy, A. Residential Customer Extensions
8 (Sheet 59 and 60 of 110) states as follows:

9 1. The Company shall make free extensions of its Mains where such
10 extensions are necessary to render Gas Service to a Residential Customer
11 or group of Residential Customers (hereinafter collectively referred to as
12 "Residential Customer") or a subdivider or developer of lots for family
13 dwelling unit(s) (hereinafter referred to as "Residential Developer"), whose
14 premises are located within the area in which the Company has received a
15 Certificate of Public Convenience and Necessity from the Commission,
16 provided, however, **the necessary extension does not require an**
17 **expenditure by the Company in excess of the average embedded cost**
18 **per customer for existing Mains as filed in the Schedule of Advance for**
19 **Construction of Mains and Company Service Lines.** [emphasis added]

20
21 2. This rule shall apply to the extension of Mains only and shall not be
22 applicable to reinforcing high, intermediate or low pressure mains, or to tap
23 pipelines in rural areas extended from transmission lines and gathering
24 lines.

25
26 3. **If, in the judgment of Company,** any extension requires such
27 extraordinary construction cost, or **the prospective business therefrom is**
28 **so meager that it is doubtful whether the business from the extension**
29 **will pay a fair return sufficient to compensate for the extraordinary**
30 **expenses involved, a cash contribution or a satisfactory guarantee of**
31 **revenue through adjustment of the minimum bill provisions of the**
32 **applicable rate may be required.** [emphasis added]
33

34 As is apparent from the Company's own tariff, Atmos does not wantonly install
35 distribution mains throughout its service area in order to simply connect customers. As

1 such, there is no cost required to simply connect customers or any “ready to serve” cost
2 component associated with distribution mains. Indeed, there is not a single customer that
3 connects to a natural gas system simply to be connected. Rather, natural gas customers
4 connect to a system in order to consume natural gas for their energy needs. While it is
5 obvious that customers must be physically connected to an NGDC’s system, natural gas
6 consumption is the very purpose for the existence of Atmos; i.e., an infrastructure system
7 of pipes to distribute natural gas to its consumers to meet their energy needs. NGDCs do
8 not install mains throughout their service territory if there is no anticipated natural gas to
9 be distributed through those mains.

10
11 **Q. Does Mr. Raab attempt to provide authoritative support for his proposal to classify**
12 **distribution mains as partially customer-related and partially demand-related?**

13 A. Yes. On pages 6 and 7 of his Direct Testimony, Mr. Raab provides a partial quote from a
14 1981 NARUC Gas Rate Design Manual wherein this partial quote states:

15 “[t]he argument for inclusion of [customer] cost[s] relating to a service line
16 and/or a ‘minimum size or zero inch’ distribution main is that these facilities
17 are necessary to connect the customer to the system and thus afford him the
18 opportunity to take service if he so desires.”
19

20 However, the updated 1989 NARUC Gas Distribution Rate Design Manual on this topic
21 clearly states:

22 A portion of the costs associated with the distribution system may be
23 included as customer costs. **However, the inclusion of such costs can be**
24 **controversial.** One argument for inclusion of distribution relates items in
25 the customer cost classification is the “zero or minimum size main theory.”
26 **This theory assumes that there is a zero or minimum size main**
27 **necessary connect the customer to the system and thus affords the**
28 **customer an opportunity to take service if he so desires.**

1 Under the minimum size main theory, all distribution mains are priced out
2 at the historic unit cost of the smallest main installed in the system, and
3 assigned as customer costs. The remaining book cost of distribution mains
4 is assigned to demand. The zero-inch main method would allocate the cost
5 of a theoretical main of zero-inch diameter to the customer function, and
6 allocate the remaining costs associated with mains to demand. A
7 calculation of a minimum size main is shown in the illustrative cost
8 allocation study. **The contra argument to the inclusion of certain**
9 **distribution costs as customer costs is that mains and services are**
10 **installed to serve demands of the consumers and should be allocated to**
11 **that function.** Under this basic system theory, only those facilities, such as
12 meters, regulators and service taps, are considered to be customer related,
13 as they vary directly with the number of customers on the system.⁵
14 [emphasis added]

15 **Q. Moving on to Mr. Raab's approach to allocate demand-related costs associated with**
16 **transmission plant and distribution mains, is there a significant bias in Mr. Raab's**
17 **assignment of these costs to individual rate schedules?**

18 A. Yes. Mr. Raab assigned no transmission costs to Interruptible customers, nor did he assign
19 any distribution mains demand-related costs to these customers.⁶ In order to understand
20 the unreasonableness of Mr. Raab's allocation of transmission and distribution mains,
21 consider the following relationships:

⁵ Pages 22 and 23.

⁶ Due to Mr. Raab's classification of distribution mains between customer and demand, Interruptible customers are assigned a very small amount of distribution mains.

TABLE 1
Witness Raab Allocation of Transmission & Distribution Mains Plant

	Residential	Interruptible
Annual MCF Throughput	106,972,846	14,498,207
<u>No. of Customers</u>	<u>127,777</u>	<u>34</u>
Annual Use per Customer	837	426,418
<u>Allocated Gross Transmission Plant</u>	<u>\$1,158,878</u>	<u>\$0</u>
Gross Trans. Plant per Customer	\$9.07	\$0.00
<u>Allocated Gross Distribution Mains</u>	<u>\$169,032,267</u>	<u>\$20,755</u>
Gross Dist. Mains per Customer	\$1,322.87	\$610.44
Gross Transmission + Dist. Mains per Customer	\$1,332	\$610

1 The average Residential customer uses 837 MCF per year while the average Interruptible
 2 customer uses 426,418 MCF per year. In relative terms, a single Interruptible customer
 3 uses more natural gas than 509 Residential customers ($426,418 \div 837$). At the same time,
 4 Mr. Raab's allocation of demand-related costs would assign \$1,332 of gross transmission
 5 and distribution mains cost to a single Residential customer, yet only \$610 to the very large
 6 average Interruptible customer. As can be seen above, even though Interruptible customers
 7 use a very large amount of natural gas throughout the entire year, these customers are
 8 assigned a *de minimis* level of investment required to bring natural gas to these customers.

9
 10 **Q. What is the rationale for not assigning any demand-related costs to Interruptible**
 11 **customers?**

12 A. The philosophy for this rationale is that because Interruptible customers can be curtailed
 13 during periods of peak demand, a utility does not plan for these loads in making their
 14 investments in transmission and distribution mains. Therefore, some analysts are of the
 15 opinion that Interruptible customers should bear no cost responsibility associated with the

1 infrastructure that is required to deliver natural gas to these customers. In other words,
2 these analysts are of the opinion that Interruptible customers should receive a free ride in
3 the costs required to deliver natural gas to these customers throughout the year.
4

5 **Q. Does Atmos frequently interrupt non-firm customers?**

6 A. No. In response to CURB Data Request 1-61, the Company indicated that there has only
7 been one event in the last five years in which non-firm customers were interrupted and this
8 event was the Winter Storm Uri during February 2021. In this regard, the Company's
9 response indicated that the interruptions were not a result of capacity constraints within
10 the Atmos system itself, but rather, due to upstream pipeline constraints of other utilities
11 serving Atmos.
12

13 **Q. Even though Atmos rarely interrupts non-firm customers, is it reasonable to treat
14 these customers the same as firm customers for purposes of cost allocations?**

15 A. No. Even though non-firm customers are rarely interrupted and utilize Atmos' facilities
16 throughout the year, Interruptible service is of a lesser quality service than firm service and
17 as such, some recognition should be given to this fact. At the same time, these customers
18 should not be afforded what can be considered essentially a "free ride" in terms of cost
19 responsibility. I will discuss and provide a more fair and reasonable approach to assign
20 costs to Interruptible customers later in my testimony.

1 **Q. Earlier you indicated that some analysts prefer to employ the Peak Responsibility**
2 **method in which mains are allocated solely on the basis of peak loads. In your**
3 **opinion, is this approach fair and reasonable to all customer classes?**

4 A. No. Notwithstanding the Interruptible free ride problem associated with allocating costs
5 based solely on peak demand, a NGDC's system is constructed and is in existence in order
6 to serve the natural gas energy needs of its customers throughout the year. If Atmos' (or
7 any NGDC's) customers only demanded gas for one day of the year (the so-called peak
8 day), the costs to deliver gas throughout the system would be prohibitively high such that
9 a system would never exist. In other words, Atmos' customers demand and utilize natural
10 gas every day of the year, not just one day out of 365 days. If by chance, a customer did
11 require gas for only one day a year, it would be prohibitively expensive to the Company
12 (and ultimately the customer) to provide service. Atmos would have to recover the
13 investment in mains from a very small amount of natural gas energy (usage), which would
14 be economically infeasible.

15 The major shortcoming of the Peak Responsibility method (which allocates mains
16 entirely on peak day demand) is that it is premised on the assumption that there is a direct
17 and linear relationship between peak loads, system capacity, and costs. In fact, there is no
18 direct relationship between peak loads (capacity requirements) and the cost incurred to
19 install mains. With regard to system capacity, the amount of gas that can be delivered
20 throughout a NGDC system is not only a function of the size of pipe(s) but also the
21 pressurization of gas within these pipes as well as the presence or absence of looping
22 various segments of the distribution system. For example, if the peak load on one line
23 segment of mains is double that of another line segment, the cost of mains for the larger

1 capacity pipe may be higher, but it is not double that of the lower capacity. In very simple
2 terms, and all else constant, the *capacity* of pipes increase by a factor of exactly 4 to 1 as
3 the *diameter* of pipe increases.⁷ Therefore, if the size of a pipe is doubled, the capacity of
4 the pipe increases by a factor of four. At the same time, the cost of this additional capacity
5 is far less than four times as much.⁸

6 Additionally, and as important as the geometric capacity of pipe at a given pressure,
7 the amount of gas required to be pushed through a distribution system can be met with
8 larger pipes at lower pressures or smaller pipes at higher pressures. With improvements
9 in materials, technology, and pipe coupling, we are seeing that NGDCs are replacing their
10 systems with *smaller* plastic pipes operated at *higher* pressures. Because the allocation of
11 mains only concerns the assignment of the pipes costs, there is not a clear relationship
12 between a main segment's capacity (peak load ability) and the cost of that pipe. The
13 relevance of this is that an allocation method that only considers peak load assumes there
14 is a direct and perfectly linear relationship between load (capacity) and the cost of mains.
15 As demonstrated above, this assumption is clearly not accurate.

⁷ The volume of a cylinder (pipe) is equal to π (3.14159) x Radius² x 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.

⁸ 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, although the materials cost of the pipe also increases, it is by a much smaller percentage than the capacity added.

1 **Q. Is there a cost allocation methodology that more reasonably assigns cost responsibility**
2 **across rate schedules than Mr. Raab’s Customer/Demand approach or the Peak**
3 **Responsibility method in which demand-related costs are assigned solely on peak**
4 **demand?**

5 A. Yes. When properly applied, the P&A approach fairly and equitably assigns cost
6 responsibility across rate schedules. Under the P&A method, transmission and distribution
7 mains costs are assigned partially on a measure of peak demand and partially on annual
8 (average day) throughput. Although there is no universally accepted method to weigh cost
9 assignment between peak demand and average day demand, a common method utilized,
10 which I have done in this case, is to weigh peak demands and average demands based on
11 system load factor.⁹

12
13 **Q. Please explain how you specifically developed and applied the P&A method in this**
14 **case?**

15 A. In developing my P&A allocation factors, class peak demands are based on coincident peak
16 (“CP”) demands rather than NCP demands. While class CP and NCP demands tend to be
17 similar for most NGDCs, Atmos’ customer mix and load profiles are somewhat atypical
18 from most other NGDCs in the country. This is because of the significant irrigation load.
19 As is the case with virtually every NGDC in the country, Atmos’ system peak demand
20 occurs on a cold winter day. However, Irrigation customers tend to use very little natural
21 gas during the cold winter months.

⁹ Load factor represents the relationship between average day demand and peak day demand. Atmos’ coincident system load factor was 47.71% during the test year such that 47.71% of costs are assigned based on average demand and 52.29% of costs are assigned based on peak demand.

1 The Irrigation class peaks in the summer when total system demand is relatively
2 small. As such, Irrigation customers can be considered off-peak users of natural gas.
3 However, because there is a considerable amount of distribution mains placed in service in
4 the rural area, which are primarily used to serve irrigation loads, a reasonable level of cost
5 responsibility should be assigned to Irrigation customers. In this regard, the spirit and
6 concept of the P&A method is that recognition should be given to both concepts that
7 distribution mains are sized and placed into service to meet peak load requirements as well
8 as the utilization of natural gas throughout the year. For Atmos, the P&A method assigns
9 somewhat less than half (47.71%) of cost responsibility based on annual throughput such
10 that the Irrigation class is assigned costs based on this class's usage over the entire year.
11 However, in my opinion, it would be unfair to then assign the remaining 52.29% of costs
12 to the Irrigation class based on this class's NCP which occurs during the off-peak summer
13 months. For these reasons, my P&A allocators are based on coincident peak demands
14 rather than NCP demands.

15
16 **Q. Does NARUC recognize the P&A approach as an objective method to allocate costs?**

17 **A.** Yes. The current (1989) NARUC Gas Distribution Rate Design Manual identifies the most
18 commonly used demand allocation methods for NGDCs: Coincident Demand method;
19 Non-Coincident Demand method; and Average and Peak (P&A) method. With regard to
20 the P&A method, this Manual states as follows:

21 d. Average and Peak Demand Method

22 **This method reflects a compromise between the coincident and non-**
23 **coincident demand methods.** Total demand costs are multiplied by the
24 system's load factor to arrive at the capacity costs attributed to average use
25 and are apportioned to the various customer classes on an annual volumetric
26 basis. The remaining costs are considered to have been incurred to meet the

1 individual peak demands of the various classes of service and are allocated
2 on the basis of the coincident peak of each class. **This method allocates**
3 **cost to all classes of customers and tempers the apportionment of costs**
4 **between the high and low load factor customers** (pages 27 and 28)
5 [emphasis added].
6

7 **Q. In your experience, have some commissions relied exclusively upon the P&A method**
8 **as the preferred cost allocation approach for NGDCs?**

9 A. Yes. While I have not conducted a formal survey, I practice throughout the Country. The
10 Washington Utilities and Transportation Commission has a stated policy that the P&A
11 method is the approved cost allocation approach for all NGDCs (Puget Sound Energy,
12 Avista Corporation, Cascade Natural Gas, and Northwest Natural Gas). Similarly, the
13 Pennsylvania Public Utility Commission has a long-standing practice of considering both
14 peak demands and average usage for allocating distribution mains for all NGDCs in the
15 State (Columbia Gas, Peoples Natural Gas, National Fuel Distribution Company, Valley
16 Energy, UGI Utilities, Philadelphia Gas Works, and PECO Gas). The Maryland Public
17 Service Commission has accepted the P&A method for Washington Gas Light. The
18 Virginia State Corporation Commission has also found that the P&A method is the most
19 appropriate method to allocate distribution mains cost for Washington Gas Light. The
20 Delaware Public Service Commission has accepted and relied upon the P&A method for
21 its only NGDC (Delmarva Power & Light). The Rhode Island Public Utilities Commission
22 does not endorse the P&A method per se, but rather, utilizes a method of weighted monthly
23 consumption; i.e., considers only usage (National Grid Gas Services).

1 **Q. Has Mr. Raab himself acknowledged that the P&A method is a traditional and**
2 **accepted method?**

3 A. Yes. In an Atmos Energy Kentucky rate case (Case No. 2013-00148), Mr. Raab stated as
4 follows:

5 While I may not necessarily agree with Mr. Watkins' classifications and
6 allocations, I would admit that there is support for his approach in
7 previously filed cost of service studies in other jurisdictions. Both
8 approaches utilize traditional and accepted classification and allocations
9 methods and yet produce widely divergent results of the "cost of service."¹⁰
10

11 **Q. Have you made any other adjustments to Mr. Raab's study?**

12 A. Yes. Excluding our differences relating to the allocation of transmission plant and
13 distribution mains, I have allocated certain rate base and O&M expenses somewhat
14 differently than Mr. Raab. However, and as will be shown below, these differences are
15 generally minimal in terms of overall results. Nonetheless, I have allocated certain rate
16 base and expense accounts somewhat differently than Mr. Raab which are outlined and
17 described in my Schedule GAW-2.
18

19 **Q. Notwithstanding your recommendation to utilize the P&A method to allocate**
20 **transmission plant and distribution mains, please provide a comparison of class rates**
21 **of return that incorporate only those accounts that you allocated somewhat**
22 **differently than Mr. Raab.**

23 A. In evaluating the impact of using different allocation factors than
24 Mr. Raab (but for my use of the P&A method to allocate transmission plant and distribution

¹⁰ Rebuttal testimony of Paul H. Raab, Kentucky Public Service Commission, Case No. 2013-00148, page 5, lines 15 through 19 (2013).

1 mains), I calculated the differences in class rates of return (“RORs”) and indexed RORs
 2 based on Mr. Raab’s recommended study. As can be seen below, these differences are
 3 generally minimal:

TABLE 2
 Comparison of RORs & Indexed RORs at Current Rates
 Raab Study vs. Alternative Allocators
 (But for Differences in Allocation of Transmission and Distribution Mains)

Rate Schedule	ROR		Indexed ROR	
	Raab Study	Alternative Allocators	Raab Study	Alternative Allocators
Residential Sales	3.29%	3.38%	56%	57%
Com/PA Sales	11.67%	11.71%	198%	199%
Schools Sales	9.46%	9.52%	160%	161%
Industrial Sales	3.68%	-2.45%	62%	-42%
SGS Sales	32.18%	34.08%	546%	578%
Irrigation Sales	6.67%	6.01%	113%	102%
Interruptible Sales	67.13%	55.65%	1139%	944%
Firm Transport	20.69%	18.87%	351%	320%
Schools Transport	9.52%	8.99%	161%	152%
Irrigation Transport	18.70%	17.15%	317%	291%
Interruptible Transport	603.44%	170.40%	10234%	2890%
Total Company	5.90%	5.90%	100%	100%

4 While the indexed ROR for the Industrial Sales class changes from positive to negative,
 5 this class’s parity ratio is significantly below the system average under both Mr. Raab’s
 6 study and my selected allocation factors. Similarly, the Interruptible Transportation class’s
 7 absolute and indexed RORs are exceptionally large under both approaches.

8
 9 **Q. Please provide a summary of class RORs and indexed RORs under your**
 10 **recommended CCOSS.**

11 A. The following table provides a summary of class RORs and indexed RORs at current rates
 12 under my recommended P&A CCOSS. The details of my CCOSS are provided in my
 13 Schedule GAW-3.

TABLE 3
CURB CCOSS Results At Current Rates

Rate Schedule	ROR	Indexed ROR
Residential Sales	5.52%	94%
Com/PA Sales	7.04%	119%
Schools Sales	6.88%	117%
Industrial Sales	-5.03%	-85%
SGS Sales	64.76%	1098%
Irrigation Sales	12.61%	214%
Interruptible Sales	2.06%	35%
Firm Transport	4.73%	80%
Schools Transport	4.02%	68%
Irrigation Transport	10.40%	176%
Interruptible Transport	7.96%	135%
Total Company	5.90%	100%

1 **Q. Please provide a comparison of class rates of return under your P&A study to those**
2 **obtained by Mr. Raab's study.**

3 A. The following table provides a comparison of my recommended CCOSS results to those
4 obtained under Mr. Raab's study:

TABLE 4
Comparison of RORs & Indexed RORs at Current Rates
CURB vs. Raab Results

Rate Schedule	ROR		Indexed ROR	
	CURB Study	Raab Study	CURB Study	Raab Study
Residential Sales	5.52%	3.29%	94%	56%
Com/PA Sales	7.04%	11.67%	119%	198%
Schools Sales	6.88%	9.46%	117%	160%
Industrial Sales	-5.03%	3.68%	-85%	62%
SGS Sales	64.76%	32.18%	1098%	546%
Irrigation Sales	12.61%	6.67%	214%	113%
Interruptible Sales	2.06%	67.13%	35%	1139%
Firm Transport	4.73%	20.69%	80%	351%
Schools Transport	4.02%	9.52%	68%	161%
Irrigation Transport	10.40%	18.70%	176%	317%
Interruptible Transport	7.96%	603.44%	135%	10234%
Total Company	5.90%	5.90%	100%	100%

5 As can be seen above, there are significant differences between these two studies.

1 **Q. What are your findings and recommendations concerning class cost allocations in**
2 **this case?**

3 A. As explained earlier in my testimony, class cost allocations studies cannot be considered
4 surgically precise for a variety of reasons. In this regard, while I am of the opinion that
5 the P&A method most reasonably reflects cost causation and I strongly disagree with the
6 Customer/Demand approach applied to Atmos, I recognize that the Customer/Demand
7 method is sometimes used in the NGDC industry. As such, in evaluating class revenue
8 responsibility, I gave primary weight to my P&A study but also considered the results of
9 Mr. Raab's Customer/Demand study.

10

11 **III. CLASS REVENUE DISTRIBUTION**

12 **Q. What overall revenue increase does Atmos request in this case?**

13 A. Atmos' filing reflects a requested revenue increase of \$8.318 million. However, it is my
14 understanding that in response to Staff Data Request 1-129, the Company provided an
15 updated revenue requirement increase request of \$7.761 million.

16

17 **Q. How does the Company propose to allocate, or assign, its requested base rate**
18 **increase?**

19 A. Although the Company has updated its requested overall base rate revenue increase to
20 \$7.761 million, Company witness Raab did not update his recommendation based on this
21 update. As a result, Mr. Raab's class revenue allocations are based on the Company's
22 original request of \$8.318 million.

1 In developing his allocation of the Company's proposed overall increase to
2 individual classes, Mr. Raab relied largely on the results of his Customer/Demand CCOSS.
3 As a result, Mr. Raab's CCOSS study identified three rate schedules (Residential, Industrial
4 Sales, and Irrigation Sales) whose calculated RORs at current rates are below the system
5 average ROR. Specifically, Mr. Raab's study indicates that the Residential and Industrial
6 Sales classes are substantially below parity and that Irrigation Sales is somewhat below
7 parity. Mr. Raab's CCOSS indicates that all other rate class's RORs are above the
8 Company's requested ROR. As a result, Mr. Raab recommends that no class receive a rate
9 decrease and that the three classes with deficient RORs absorb the entire requested overall
10 increase. In this regard, Mr. Raab proposes to increase the Residential and Industrial Sales
11 rate schedules by approximately 18.3% and increase Irrigation Sales by approximately
12 9.2%.

13 It should also be noted that the Company proposes to eliminate all Miscellaneous
14 Service Charges (with the exception of Ad Valorem Taxes, which are trued-up through a
15 rider) such that \$422,319 currently collected from these Miscellaneous Service Charges
16 would be absorbed by the three classes in which Mr. Raab proposes rate increases. Finally,
17 and as shown in the table below, Mr. Raab's actual rate design collects \$73,009 less than
18 the overall requested revenue increase. This is due to the Company's proposal to set the
19 Residential volumetric rate equal to the volumetric rate for Commercial and Public
20 Authority Sales service.¹¹

¹¹ Mr. Raab's target proposed revenue would result in a Residential volumetric charge of \$0.15132 per CCF. However, he proposes to set the proposed Residential volumetric rate at \$0.15128 per CCF which is equal to the proposed volumetric rate for Commercial/Public Authority Sales.

1 **Q. Please provide a summary of Mr. Raab's proposed class revenue distribution.**

2 A. The following table provides a summary of the Company's proposed class revenue
3 distribution:

TABLE 5
Atmos Proposed Class Revenue Increases
(\$000)

Rate Schedule	Present Revenue	Atmos Proposed				
		Proposed Target Revenues	Target Increase	Proposed Increase After Rate Design	Target % Increase	Actual % Increase
<u>Sales:</u>						
Residential	\$47,012.7	\$55,608.9	\$8,596.2	\$8,592.0	18.28%	18.28%
Comm/Public Auth.	\$11,627.7	\$11,627.7	\$0.0	\$0.0	0.00%	0.00%
Schools	\$118.6	\$118.6	\$0.0	\$0.0	0.00%	0.00%
Industrial	\$113.0	\$133.8	\$20.8	\$20.8	18.39%	18.39%
Small Generator	\$42.5	\$42.5	\$0.0	\$0.0	0.00%	0.00%
Interruptible	\$74.0	\$74.0	\$0.0	\$0.0	0.00%	0.00%
Irrigation	\$1,346.0	\$1,469.5	\$123.5	\$123.5	9.18%	9.18%
Subtotal Sales	\$60,334.4	\$69,075.0	\$8,740.5	\$8,736.3	14.49%	14.48%
<u>Transportation:</u>						
Firm	\$3,170.4	\$3,170.4	\$0.0	\$0.0	0.00%	0.00%
Schools	\$742.5	\$742.5	\$0.0	\$0.0	0.00%	0.00%
Irrigation	\$168.0	\$168.0	\$0.0	\$0.0	0.00%	0.00%
Interruptible	\$1,338.1	\$1,338.1	\$0.0	\$0.0	0.00%	0.00%
Subtotal Transport.	\$5,419.0	\$5,419.0	\$0.0	\$0.0	0.00%	0.00%
Total	\$65,753.4	\$74,494.0	\$8,740.5	\$8,736.3	13.29%	13.29%
Special Contracts	\$359.6	\$359.6	\$0.0	(\$68.8) ¹²	0.00%	-19.12%
Other Revenues	\$422.3	\$0.0	(\$422.3)	(\$422.3)	-100.00%	-100.00%
Total Sales Margin	\$66,535.4	\$74,853.6	\$8,318.2	\$8,245.2	12.50%	12.39%
Rate Design Shortfall				\$73.0		
Total As Adjusted	\$66,535.4	\$74,853.6	\$8,318.2	\$8,318.2	12.50%	12.50%

4 **Q. Do you agree with Mr. Raab's proposed class revenue distribution?**

5 A. No. Mr. Raab's proposed class revenue distribution is predicated on his CCOSS that
6 significantly over assigns costs to the Residential class and significantly under assigns costs
7 to certain large volume user classes. As indicated earlier, I have relied primarily on the

¹² In response to CURB Data Request 1-78, the Company determined there was a formula error in their spreadsheet and it is Atmos' intention that there should be no decrease to Special Contract revenues.

1 results of my P&A CCOSS but also given some recognition to Mr. Raab's CCOSS. In this
2 regard, and as shown in the table below, three rate schedules (Small Generator Sales,
3 Irrigation Transportation, and Interruptible Transportation) all have RORs above parity
4 under both Mr. Raab's Customer/Demand as well as my P&A studies. As a result, I
5 recommend no increase to these three rate schedules. The Industrial Sales rate has a
6 deficient ROR under both studies such that I recommend a somewhat higher percentage
7 increase to this rate schedule (125% of the system average percentage increase). Three rate
8 schedules (Commercial/Public Authority Sales, School Sales, and Irrigation Sales) have
9 RORs somewhat above parity such that I have assigned these rate schedules an increase of
10 75% of the system average percentage increase. The RORs for the Interruptible Sales rate
11 schedule vary dramatically such that under Mr. Raab's study, this rate schedule is
12 significantly over-contributing and under my study, this rate schedule is significantly
13 under-contributing. As a result of these differences, I recommend that this rate schedule
14 be increased at the system average percent increase. Finally, because the Residential class
15 is by far the largest, this class was treated as the residual in order to achieve an overall
16 revenue increase of \$8.318 million.

TABLE 6
Summary of CCOSS Results and CURB Revenue Distribution Approach

Rate Schedule	CCOSS Results At Current Rates				CURB Proposed Pct. of Sys Avg Increase
	ROR		Indexed ROR		
	Raab Cust./ Demand	CURB P&A	Raab Cust./ Demand	CURB P&A	
<u>Sales:</u>					
Residential	3.29%	5.52%	56%	94%	103% ¹³
Comm/Public Auth.	11.67%	7.04%	198%	119%	75%
Schools	9.46%	6.88%	160%	117%	75%
Industrial	3.68%	-5.03%	62%	-85%	125%
Small Generator	32.18%	64.76%	546%	1098%	0%
Interruptible	67.13%	2.06%	1139%	35%	100%
Irrigation	6.67%	12.61%	113%	214%	75%
<u>Transportation:</u>					
Firm	20.69%	4.73%	351%	80%	100%
Schools	9.52%	4.02%	161%	68%	100%
Irrigation	18.70%	10.40%	317%	176%	0%
Interruptible	603.44%	7.96%	10234%	135%	0%
Total	5.90%	5.90%	100.00%	100.00%	100.00%

- 1 **Q. Please provide the details of your recommended revenue distribution utilizing the**
2 **Company's originally requested \$8.318 million overall increase.**
- 3 A. In order to provide an apples-to-apples comparison with Mr. Raab's proposed class revenue
4 distribution, the following table provides my recommended increases by individual rate
5 schedule utilizing the Company's requested \$8.318 million overall increase:

¹³ Treated as the residual in order to achieve the overall requested increase.

TABLE 7
 CURB Recommended Revenue Distribution At \$8.318 Million Increase
 (\$000)

Rate Schedule	Present Revenue	Pct. of System Average Increase	Pct. Increase	\$ Increase
<u>Sales:</u>				
Residential	\$47,012.7	103%	13.75%	\$6,464.2
Comm/Public Auth.	\$11,627.7	75%	9.97%	\$1,159.2
Schools	\$118.6	75%	9.97%	\$11.8
Industrial	\$113.0	125%	16.62%	\$18.8
Small Generator	\$42.5	0%	0.00%	\$0.0
Interruptible	\$74.0	100%	13.29%	\$9.8
Irrigation	\$1,346.0	75%	9.97%	\$134.2
Subtotal Sales	\$60,334.4			\$7,798.1
<u>Transportation:</u>				
Firm	\$3,170.4	100%	13.29%	\$421.4
Schools	\$742.5	100%	13.29%	\$98.7
Irrigation	\$168.0	0%	0.00%	\$0.0
Interruptible	\$1,338.1	0%	0.00%	\$0.0
Subtotal Transport.	\$5,419.0			\$520.1
Total Full Tariff	\$65,753.4		12.65%	\$8,318.2
Special Contracts	\$359.6			\$0.0
Other Revenues	\$422.3			\$0.0
Total Sales Margin	\$66,535.4			\$8,318.2

1 It should be noted that CURB witness Josh Frantz recommends that current Miscellaneous
 2 Service Charges be maintained such that my revenue distribution reflects Mr. Frantz’s
 3 recommendation.

4
 5 **Q. Please provide a comparison of Mr. Raab’s and your recommended rate schedule**
 6 **increases utilizing the Company’s original overall requested increase of \$8.318**
 7 **million.**

8 A. The following table provides a comparison of the Company’s and CURB’s recommended
 9 increases by individual rate schedule:

TABLE 8
Comparison of Atmos Proposed & CURB Recommended Revenue Distribution
(\$000)

Rate Schedule	Present Revenue	Increase		Pct. Increase	
		Atmos	CURB	Atmos	CURB
<u>Sales:</u>					
Residential	\$47,012.7	\$8,592.0	\$6,464.2	18.28%	13.75%
Comm/Public Auth.	\$11,627.7	\$0.0	\$1,159.2	0.00%	9.97%
Schools	\$118.6	\$0.0	\$11.8	0.00%	9.97%
Industrial	\$113.0	\$20.8	\$18.8	18.39%	16.62%
Small Generator	\$42.5	\$0.0	\$0.0	0.00%	0.00%
Interruptible	\$74.0	\$0.0	\$9.8	0.00%	13.29%
Irrigation	\$1,346.0	\$123.5	\$134.2	9.18%	9.97%
Subtotal Sales	\$60,334.4	\$8,736.3	\$7,798.1		
<u>Transportation:</u>					
Firm	\$3,170.4	\$0.0	\$421.4	0.00%	13.29%
Schools	\$742.5	\$0.0	\$98.7	0.00%	13.29%
Irrigation	\$168.0	\$0.0	\$0.0	0.00%	0.00%
Interruptible	\$1,338.1	\$0.0	\$0.0	0.00%	0.00%
Subtotal Transport.	\$5,419.0	\$0.0	\$520.1		
Total Full Tariff	\$65,753.4	\$8,736.3	\$8,318.2	13.29%	12.65%
Special Contracts	\$359.6	(\$68.8) ¹⁴	\$0.0	-19.12%	0.00%
Other Revenues	\$422.3	(\$422.3)	\$0.0	-100.00%	0.00%
Total Sales Margin	\$66,535.4	\$8,245.2	\$8,318.2	12.39%	12.50%
Rate Design Shortfall		\$73			
Total As Adjusted	\$66,535	\$8,318	\$8,318	12.50%	12.50%

1 **Q. To the extent the Commission authorizes an overall increase less than that requested**
2 **by Atmos, how should the overall revenue increase be assigned across rate schedules?**

3 A. A smaller overall revenue increase authorized by the Commission in this case should be
4 assigned across rate schedules in proportion to the rate increases shown in my Table 7.

¹⁴ In response to CURB Data Request 1-78, the Company determined there was a formula error in their spreadsheet and it is Atmos' intention that there should be no decrease to Special Contract revenues.

1 **IV. RESIDENTIAL RATE DESIGN**

2 **Q. Please explain Atmos' current and proposed Residential rate structure.**

3 A. The Company's current Residential margin rates are structured with a fixed monthly
4 customer (facilities) charge of \$18.89 plus a flat delivery charge per CCF of \$0.14994. In
5 addition, the Company's margin rates include a fixed Gas System Reliability Surcharge
6 ("GSRS") of \$1.60 and a fixed monthly Tax Reform Credit of \$0.29. Mr. Raab proposes
7 to increase the fixed monthly facilities charge to \$25.71 which represents a 36.1% increase
8 to the base fixed monthly charge, or a 27.3% increase to the total fixed charge (which
9 includes the GSRS and fixed Tax Reform Credit). In addition, Mr. Raab proposes to
10 increase the base commodity charge to \$0.15128 per CCF which represents a minimal
11 proposed increase of only 0.9%.

12

13 **Q. Are the Company's current and proposed Residential fixed monthly charges fair and**
14 **reasonable?**

15 A. No. Atmos' Residential fixed monthly charges are grossly excessive from both a policy
16 and economic perspective.

17

18 **Q. Please explain.**

19 A. From a public policy perspective, Atmos currently collects 66% (almost two-thirds) of its
20 annual Residential margin revenues in unavoidable fixed charges.¹⁵ Under the Company's
21 proposed rates, the annual fixed charge margin ratio would increase to 71%.¹⁶ However,
22 the above percentages are based on total annual amounts. When the monthly fixed charge

¹⁵ Per Section 17-Billing Determinants Study of the Company's Filing.

¹⁶ *Id.*

1 ratios are examined based on the Test Year's experience, we see that as much as 93% of
 2 total Residential margin revenues would be collected in fixed charges during the non-winter
 3 months as shown in the table below:

TABLE 9
 Atmos Proposed Fixed Charge Revenue
 As a Percent of Total Margin Revenue¹⁷

Month	Residential Margin Revenue @ Atmos Proposed Rates			Percent Fixed
	Fixed Charges	Volumetric Charges	Total	
Apr-21	\$3,289,106	\$1,379,859	\$4,668,965	70%
May-21	\$3,285,404	\$725,931	\$4,011,335	82%
Jun-21	\$3,304,609	\$375,320	\$3,679,929	90%
Jul-21	\$3,287,358	\$272,126	\$3,559,484	92%
Aug-21	\$3,306,383	\$240,210	\$3,546,593	93%
Sep-21	\$3,287,075	\$257,281	\$3,544,356	93%
Oct-21	\$3,284,453	\$281,991	\$3,566,443	92%
Nov-21	\$3,303,118	\$893,128	\$4,196,246	79%
Dec-21	\$3,307,540	\$1,686,509	\$4,994,049	66%
Jan-22	\$3,311,448	\$2,877,353	\$6,188,801	54%
Feb-22	\$3,319,881	\$3,061,677	\$6,381,558	52%
Mar-22	\$3,338,675	\$2,508,511	\$5,847,186	57%

4 These exceptionally high fixed charges ratios significantly inhibit Residential
 5 customers' abilities to control their natural gas bills and are clearly contrary to energy
 6 conservation efforts given the fact that the vast majority of margin revenues are
 7 unavoidable due to fixed charges.

8

9 **Q. Although Atmos currently collects 66% of its Residential annual margin revenues**
 10 **from fixed charges, have you conducted a comparison of what the current fixed**
 11 **charge percentages are for other classes?**

¹⁷ Calculated per Staff Data Request 1-92, Attachment 1. Not weather normalized.

- 1 A. Yes. The following table provides a comparison by class of the percentage of current
2 margin revenues collected from fixed charges:

TABLE 10
Comparison of Margin Fixed Charge Ratios by Class

	Current Rates		
	Fixed Charges	Volumetric Charges	Percent Fixed
<u>Sales:</u>			
Residential	\$30,973	\$16,040	66%
Commercial	\$5,294	\$5,520	49%
Public Authority	\$376	\$438	46%
Schools	\$51	\$68	43%
Industrial	\$15	\$98	14%
Interruptible	\$6	\$68	8%
Irrigation	\$310	\$1,036	23%
<u>Transportation:</u>			
Firm	\$2,847	\$28,550	9%
Schools	\$2,925	\$4,500	39%
Industrial	\$17	\$290	6%
Irrigation	\$448	\$1,232	27%
Interruptible	\$189	\$1,149	14%

- 3 As can be seen above, the Residential class's margin fixed charge ratio is significantly
4 larger than any other class.

- 5
6 **Q. A Residential customer's total natural gas bill is comprised of margin rates plus**
7 **Purchased Gas Adjustment ("PGA") rates and Ad Valorem taxes. Have you**
8 **calculated the average Residential monthly total bill and percentage of the total bill**
9 **that is unavoidable due to fixed charges?**

- 10 A. Yes. The current (December 2022) PGA rate of \$0.90139 is exceptionally high due to the
11 large prior under-recovery of gas costs such that the PGA rate used in the Company's filing

1 (March 2022) of \$0.48367 may be more reasonable on a forward looking basis.¹⁸
 2 Nonetheless, the following two tables provide a comparison of the monthly average
 3 Residential total bills under both PGA rates as well as the unavoidable fixed charge
 4 percentage of the total average bill:

TABLE 11
 Atmos Proposed Residential Average Total Bills

Based on Dec-22 PGA			Based on Mar-22 PGA		
	Average			Average	
Month	Total Bill	Percent Fixed	Month	Total Bill	Percent Fixed
Apr-21	\$100.92	25%	Apr-21	\$71.14	36%
May-21	\$65.32	39%	May-21	\$49.64	52%
Jun-21	\$46.07	56%	Jun-21	\$38.01	68%
Jul-21	\$40.55	63%	Jul-21	\$34.67	74%
Aug-21	\$38.73	66%	Aug-21	\$33.58	77%
Sep-21	\$39.74	65%	Sep-21	\$34.19	75%
Oct-21	\$41.10	63%	Oct-21	\$35.01	73%
Nov-21	\$74.18	35%	Nov-21	\$54.99	47%
Dec-21	\$117.12	22%	Dec-21	\$80.92	32%
Jan-22	\$181.48	14%	Jan-22	\$119.80	21%
Feb-22	\$191.04	13%	Feb-22	\$125.57	20%
Mar-22	\$160.41	16%	Mar-22	\$107.07	24%

5 As can be seen above, under Atmos' proposal, the average Residential customer's total
 6 monthly bill during the summer months would be about \$34 to \$41 even though gas usage
 7 is very small. Furthermore, the unavoidable fixed charge would represent about two-thirds
 8 to three-quarters of the customer's total summer bill. These large summer bills place
 9 significant burdens on Residential households due to the fact that these customers also incur
 10 very high electric bills during the hot summer months. This is particularly burdensome for

¹⁸ It is understood that the current under-recovery balance will be collected over a two-year period.

1 low income customers. To be clear, these burdens are a direct result of the Company's
2 excessive and unavoidable fixed monthly charges.

3
4 **Q. Does the Company's proposal to collect a substantial portion of Residential base rate**
5 **revenue from fixed monthly charges comport with the economic theory of competitive**
6 **markets or the actual practices of such competitive markets?**

7 A. No. The most basic tenet of competition is that prices determined through a competitive
8 market ensure the most efficient allocation of society's resources. Because public utilities
9 are generally afforded monopoly status under the belief that resources are better utilized
10 without duplicating the fixed facilities required to serve consumers, a fundamental goal of
11 regulatory policy is that regulation should serve as a surrogate for competition to the
12 greatest extent practical.¹⁹ As such, the pricing policy for a regulated public utility should
13 mirror those of competitive firms to the greatest extent practical.

14
15 **Q. Please briefly discuss how prices are generally structured in competitive markets.**

16 A. Under economic theory, efficient price signals result when prices are equal to marginal
17 costs.²⁰ It is well known that costs are variable in the long run. Therefore, efficient pricing
18 results from the incremental variability of costs even though a firm's short-run cost
19 structure may include a high level of sunk or "fixed" costs or be reflective of excess
20 capacity.

¹⁹ James C. Bonbright, et al., *Principles of Public Utility Rates*, p. 141 (Second Edition, 1988).

²⁰ Strictly speaking, efficiency is achieved only when there is no excess capacity such that short-run marginal costs equal long-run marginal costs. In practice, there is usually at least some excess capacity present such that pricing based on long-run marginal costs represents the most efficient utilization of resources.

1 **Q. Please briefly explain the economic principles of efficient price theory and how short-**
2 **run fixed costs are recovered under such efficient pricing.**

3 A. Perhaps the best known micro-economic principle is that in competitive markets (i.e.,
4 markets in which no monopoly power or excessive profits exist), prices are equal to
5 marginal cost. Marginal cost is equal to the incremental change in cost resulting from an
6 incremental change in output. A full discussion of the calculus involved in determining
7 marginal costs is not appropriate here. However, it is readily apparent that because
8 marginal costs measure the changes in costs with output, short-run “fixed” costs are
9 irrelevant in efficient pricing. This is not to say that efficient pricing does not allow for the
10 recovery of short-run fixed costs. Rather, they are reflected within a firm’s production
11 function such that no excess capacity exists and that an increase in output will require an
12 increase in costs -- including those considered “fixed” from an accounting perspective. As
13 such, under efficient pricing principles, marginal costs capture the variability of costs, and
14 prices are variable because prices equal these costs.

15

16 **Q. Please explain how efficient pricing principles are applied to the natural gas**
17 **distribution industry.**

18 A. Universally, utility marginal cost studies include three separate categories of marginal
19 costs: demand, energy, and customer. Consistent with the general concept of marginal
20 costs, each of these costs varies with incremental changes. Marginal demand costs measure
21 the incremental change in costs resulting from an incremental change in peak load
22 (demand). Marginal energy (commodity) costs measure the incremental change in costs
23 resulting from an incremental change in CCF (energy) consumption. Marginal customer

1 costs measure the incremental change in costs resulting from an incremental change in
2 number of customers.

3 Particularly relevant here is understanding what costs are included within, and the
4 procedures used to determine, marginal customer costs. Since marginal customer costs
5 reflect the measurement of how costs vary with the number of customers, they only include
6 those costs that directly vary as a result of adding a new customer.

7

8 **Q. Please explain how this theory of competitive pricing should be applied to regulated**
9 **public utilities such as Atmos.**

10 A. Due to Atmos' investment in system infrastructure, there is no debate that many of its short-
11 run costs are fixed in nature. However, as discussed above, efficient competitive prices are
12 established based on long-run costs, which are entirely variable in nature.

13 Marginal cost pricing only relates to efficiency. This pricing does not attempt to
14 address fairness or equity. Fair and equitable pricing of a regulated monopoly's products
15 and services should reflect the benefits received for the goods or services. In this regard,
16 those that receive more benefits should pay more in total than those who receive fewer
17 benefits. Regarding natural gas usage, the level of consumption is the best and most direct
18 indicator of benefits received. Thus, volumetric pricing promotes the fairest pricing
19 mechanism to customers and to the utility.

20 The above philosophy has consistently been the belief of economists, regulators,
21 and policy makers for generations. For example, consider utility industry pricing in the
22 1800s, when the industry was in its infancy. Customers paid a fixed monthly fee and
23 consumed as much of the utility commodity/service as they desired (usually water). It soon

1 became apparent that this fixed monthly fee rate schedule was inefficient and unfair.
2 Utilities soon began metering their commodity/service and charging only for the amount
3 actually consumed. In this way, consumers receiving more benefits from the utility paid
4 more, in total, for the utility service because they used more of the commodity.
5

6 **Q. Is the natural gas distribution industry unique in its cost structures, which are**
7 **comprised largely of fixed costs in the short-run?**

8 A. No. Most manufacturing and transportation industries are comprised of cost structures
9 predominated with “fixed” costs. These fixed costs, also called “sunk” costs, are primarily
10 comprised of investments in plant and equipment. Indeed, virtually every capital-intensive
11 industry is faced with a high percentage of so-called fixed costs in the short run. Prices for
12 competitive products and services in these capital-intensive industries are invariably
13 established on a volumetric basis, including those that were once regulated, e.g., motor
14 transportation, airline travel, and rail service.
15

16 **Q. How are high fixed customer charge rate structures contrary to effective conservation**
17 **efforts?**

18 A. High fixed charge rate structures actually promote additional consumption because a
19 consumer’s price of incremental consumption is less than what an efficient price structure
20 would otherwise be. A clear example of this principle is exhibited in the natural gas
21 transmission pipeline industry. As discussed in its well-known Order 636, the FERC’s
22 adoption of a “Straight Fixed Variable” (“SFV”) pricing method²¹ was a result of national

²¹ Under SFV pricing, customers pay a fixed charge that is designed to recover all of the utility’s fixed costs.

1 policy (primarily that of Congress) to encourage increased use of domestic natural gas by
2 promoting additional interruptible (and incremental firm) gas usage. The FERC's SFV
3 pricing mechanism greatly reduced the price of incremental (additional) natural gas
4 consumption. This resulted in significantly increasing the demand for, and use of, natural
5 gas in the United States after Order 636 was issued in 1992.

6 FERC Order 636 had two primary goals. The first goal was to enhance gas
7 competition at the wellhead by completely unbundling the merchant and transportation
8 functions of pipelines.²² The second goal was to encourage the increased consumption of
9 natural gas in the United States. In Order 636's introductory statement, FERC stated:

10 The Commission's intent is to further facilitate the unimpeded operation
11 of market forces to stimulate the production of natural gas... [and thereby]
12 contribute to reducing our Nation's dependence upon imported oil...²³
13

14 With specific regard to the SFV rate design adopted in Order 636, FERC stated:

15 Moreover, the Commission's adoption of SFV should maximize pipeline
16 throughput over time by allowing gas to compete with alternate fuels on
17 a timely basis as the prices of alternate fuels change. The Commission
18 believes it is beyond doubt that it is in the national interest to promote the
19 use of clean and abundant gas over alternate fuels such as foreign oil. SFV
20 is the best method for doing that.²⁴
21

22 **Q. As a public policy matter, what is the most effective tool that regulators have to**
23 **promote cost effective conservation and the efficient utilization of resources?**

24 A. Unquestionably, one of the most important and effective tools that this, or any, regulatory
25 Commission has to promote conservation is developing rates that send proper price signals

²² Federal Energy Regulatory Commission, Docket Nos. RM91-11-001 and RM87-34-065, Order No. 636 (Apr. 9, 1992), p. 7.

²³ *Id.* p. 8 (alteration in original).

²⁴ *Id.* pp. 128-129.

1 to conserve and utilize resources efficiently. A pricing structure that is largely fixed, such
2 that customers' effective prices do not properly vary with consumption, promotes the
3 inefficient utilization of resources. Pricing structures that are weighted heavily on fixed
4 charges are much more inferior from a conservation and efficiency standpoint than pricing
5 structures that require consumers to incur more cost with additional consumption.

6
7 **Q. A customer's total natural gas bill is comprised of a base rate component and a**
8 **purchased gas clause component. The purchased gas clause is volumetrically-priced**
9 **and represents a significant portion of a customer's total bill. Does the volumetric**
10 **pricing of these components eliminate the need for a proper pricing signal?**

11 A. No, certainly not. The fact that significant revenue may be collected volumetrically does
12 not lessen the need for a reasonable rate design.

13
14 **Q. Notwithstanding the efficiency reasons as to why regulation should serve as a**
15 **surrogate for competition, are there other relevant aspects to the pricing structures**
16 **in competitive markets *vis a vis* those of regulated utilities?**

17 A. Yes. In competitive markets, consumers, by definition, have the ability to choose various
18 suppliers of goods and services. Consumers and the market have a clear preference for
19 volumetric pricing. Utility customers are not so fortunate in that the local utility is a
20 monopoly. The only reason utilities are able to seek pricing structures with high fixed
21 monthly charges is due to their monopoly status. In my opinion, this is a critical
22 consideration in establishing utility pricing structures. Competitive markets and
23 consumers in the United States have demanded volumetric-based prices for generations.

1 A regulated utility's pricing structure should not be allowed to counter the collective
2 wisdom of markets and consumers simply because of its market power.

3

4 **Q. It is sometimes claimed that lower fixed monthly customer charges result in the**
5 **creation of intra-class subsidies between higher volume users within a particular**
6 **customer class and lower volume users. Please respond to this assertion.**

7 A. It is well known that Residential heating customers have a significantly lower load factor
8 than non-heating customers.²⁵ This is because non-heating customers tend to not be nearly
9 as weather sensitive as heating customers and so their usage is rather constant throughout
10 the year. On the other hand, Residential heating customers demand more and more of the
11 Company's facilities as cold weather and natural gas usage requirements increase. Because
12 high load factor customers evenly spread their demands throughout the year, these
13 customers are cheaper to serve (on a per unit of consumption basis) than low load factor
14 customers. As such, it cannot be said that high usage customers subsidize low usage
15 customers due to a predominant volumetric pricing schedule.

16

17 **Q. Does Mr. Raab provide any rationale or justification for his proposed \$25.71 per**
18 **month Residential fixed facilities charge?**

19 A. No. In reviewing Mr. Raab's Direct Testimony concerning rate design on pages 17 through
20 19, Mr. Raab provides no rationale or justification for his proposed fixed facilities charge.

21 The only statement Mr. Raab makes can be found on page 17 wherein he states:

²⁵ Load factor is defined as average daily usage divided by peak day usage wherein average daily usage is annual throughput divided by 365 days.

1 Atmos Energy proposes to keep its current rate designs in place, but modify
2 them to reflect changes and rate levels as appropriate, for those classes
3 where rate increases are indicated based on the guidelines above.
4

5 **Q. Does Mr. Raab provide any calculations in support of his proposed \$25.71 Residential**
6 **fixed facilities charge?**

7 A. Yes. In performing his CCOSS, Mr. Raab has placed every rate base and operating income
8 account into three classification buckets: customer; demand; and/or commodity. As a
9 result, Mr. Raab has calculated a monthly Residential customer cost based on all of the rate
10 base and expense items included in his customer classification bucket. In evaluating Mr.
11 Raab's calculated Residential customer cost of \$25.71 per month, it is important to
12 understand that a major reason for this exceptionally high Residential "customer cost" is
13 that this amount includes a large portion (46.1%) of distribution mains plant investment
14 and related costs.²⁶
15

16 **Q. Do Mr. Raab's calculated "customer cost" also include other items that should not be**
17 **considered in developing Residential fixed monthly charges?**

18 A. Yes. Remembering that Mr. Raab places single rate base and expense account into one of
19 three buckets, his analysis results in a myriad of general, administrative, and other overhead
20 costs placed into his "customer" bucket that should not be considered in developing fixed
21 Residential facilities charges. As examples, Mr. Raab's Exhibit PHR-2 includes the
22 following FERC account amounts and percentages as "customer":

²⁶ \$78.0 million Residential distribution mains are classified as customer-related and \$91.0 million is classified as demand-related.

TABLE 12
 Examples of Residential Cost Classifications in Raab Customer/Demand Study

	Customer	Total	Percent Customer
<u>Gross Plant:</u>			
Distribution Land & Rights	\$550,125	\$781,594	70.4%
Distribution Mains	\$78,000,581	\$169,032,269	46.1%
Industrial M&R Equip.	\$1,715,547	\$1,715,547	100.0%
General Plant	\$8,379,142	\$10,188,731	82.2%
Shared Services Plant	\$9,439,364	\$11,477,922	82.2%
<u>O&M Expenses:</u>			
Other Distrib. Expenses	\$1,041,840	\$1,480,201	70.4%
Sales Expense	\$73,251	\$73,251	100.0%
A&G Expense	\$7,509,468	\$8,902,304	84.4%

1 As can be seen above, Mr. Raab has included the vast majority of these costs as “customer-
 2 related” and are therefore, reflected in his calculated Residential monthly customer costs.

3

4 **Q. How should the level of fixed monthly customer charges be evaluated?**

5 A. Fixed monthly charges should only reflect the direct costs required to connect and maintain
 6 a customer’s account. As such, customer charges should only reflect the costs of service
 7 lines, meters, meter reading, customer records and billing. Customer charges should not
 8 include any overhead costs, as these are simply the cost of doing business, nor should they
 9 include any costs of mains.

10

11 **Q. Have you conducted an analysis of the appropriate level of Residential customer
 12 charges for Atmos?**

13 A. Yes. I have conducted a direct customer cost analysis for Atmos’ Residential customers,
 14 which is provided in my Schedule GAW-4. In conducting my direct customer cost
 15 analysis, I calculated a Residential customer charge revenue requirement based upon

1 CURB's recommended cost of capital as well as under the Company's requested cost of
2 capital. My studies indicate a Residential direct customer cost between \$9.57 and \$10.70
3 per month as shown in my Schedule GAW-4.

4
5 **Q. What is your recommendation regarding fixed monthly customer charges for Atmos'**
6 **Residential customers?**

7 A. Although the current Residential customer charge is significantly excessive, an immediate
8 reduction to a reasonable cost-based level may not be consistent with rate gradualism or
9 rate continuity.²⁷ In this regard, I recommend a gradual reduction to the Residential fixed
10 monthly charge over time. In developing a gradual development of a more reasonable
11 fixed monthly customer charge and remembering that the current Residential fixed charge
12 margin ratio is 66%, I recommend reducing this margin fixed charge ratio to 56% in this
13 case, which results in my recommended Residential fixed customer charge of \$17.08 per
14 month. As a result, my recommended \$17.08 per month Residential customer charge will
15 continue to recover a significant portion of overhead expenses in the fixed monthly charge.
16 Finally, considering the fact that Atmos has numerous surcharges and riders in place, the
17 Company will have every opportunity to collect its overall Residential revenue requirement
18 with my recommended \$17.08 per month Residential customer charge.

19
20 **Q. Does this complete your testimony?**

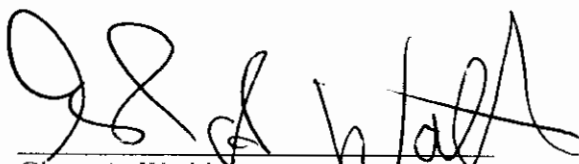
21 A. Yes.

²⁷ The concept of rate gradualism is that individual rates should change gradually over time with no radical increases or decreases. The concept of rate continuity is that the relationship across individual rate elements (e.g., fixed charges vs. volumetric charges) should not change radically from one case to another.

VERIFICATION

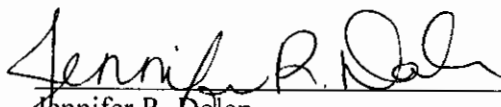
COMMONWEALTH OF VIRGINIA)
)
COUNTY OF HANOVER) ss:

Glenn A. Watkins, being duly sworn upon his oath, deposes and states that he is a consultant for the Citizens' Utility Ratepayer Board, that he has read and is familiar the foregoing *Direct Testimony*, and that the statements made herein are true and correct to the best of his knowledge, information, and belief.



Glenn A. Watkins

SUBSCRIBED AND SWORN to before me this 13th day of January, 2023.



Jennifer R. Dolen
Notary Public

My Commission expires: October 31, 2026
Reg. # 7315146



BACKGROUND & EXPERIENCE PROFILE

GLENN A. WATKINSPRESIDENT/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

Jan. 2017-Present	President/Senior Economist, Technical Associates, Inc.
Mar. 1993-Dec. 2016	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 prices 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 ENERGY CORPORATION
Allocation Factor Differences Between Atmos and CURB CCOSS
(Other Than Transmission and Distribution Mains)

1. Raab inconsistency between classification and allocation of certain Gross Plant accounts:

- Raab classified the following accounts based on Payroll but then allocated to classes on PTD Plant
- Watkins allocated total Company amount on PTD Plant

Account Nos.

39400, 39500, 39800, 39901, 39902, 39903, 39906, 39907

2. Allocation of Depreciation Reserves and Depreciation Expenses for Distribution Plant and General Plant.

- Raab allocated individual Distribution and General Plant accounts all on total Distribution Plant or Total General Plant
- CURB allocated individual Reserve and Depreciation accounts based on individual Gross Plant amounts.

3. CURB selected different allocation factors than Raab (other than P&A):

Rate Base

Distribution Land & Land Rights (Account No. 374)

Raab utilized total Distribution Plant

CURB excluded Land & Land Rights and Services through Other Property on Customer Premises (Acct. 380-387)

Industrial Measuring & Regulating Station Equipment (Account No. 385)

Raab allocated on Total Bills including Residential & Small Commercial

CURB allocated on Industrial Bills

Expenses

Acct. 856 - Mains Operations Expense

- Raab excluded Irrigation & Interruptible
- CURB used P&A

Acct. 857 - Measuring & Regulating Station Equipment

- Raab excluded Irrigation & Interruptible
- CURB used P&A

Acct. 865 - Measuring & Regulating Station Equipment - Maintenance

- Raab excluded Irrigation & Interruptible
- CURB used P&A

Acct. 874 - Mains & Services Ops

- Raab allocated on Distribution Mains Plant
- CURB allocated on Distribution Mains plus Services Plant

Payroll (Labor) Expense

Storage

- Raab excluded Interruptible Sales, Irrigation Sales & SGS Sales
- CURB included these Sales customers in the allocation

A&G Salaries

- Raab classified between Customer, Commodity, & Demand that resulted in 80.17% of these salaries based on number of customers.

- CURB allocated all A&G Salaries based on O&M Expenses less A&G

Atmos Energy Corporation
CURB - Peak & Average CCOSS
(Summary)

	Total Company	Residential Sales	Com/PA Sales	Schools Sales	Industrial Sales	SGS Sales	Irrigation Sales	Interruptible Sales	Firm Transport	Schools Transport	Irrigation Transport	Interruptible Transport	
Operating Revenues	\$66,113,077	\$47,210,516	\$11,700,486	\$119,312	\$114,155	\$42,466	\$1,362,976	\$75,531	\$3,206,231	\$747,776	\$170,231	\$1,363,397	
<u>Operating Expenses:</u>													
Operating & Maintenance	\$26,572,189	\$20,018,037	\$4,154,749	\$40,970	\$66,641	\$6,725	\$387,193	\$27,195	\$1,160,613	\$264,766	\$49,872	\$395,427	
Interest on Customer Deposits	\$1,368	\$1,334	\$26	\$0	\$0	\$0	\$8	\$0	\$1	\$0	\$0	\$0	
Depreciation & Amortization	\$14,477,758	\$10,325,724	\$2,505,738	\$26,597	\$53,115	\$3,634	\$240,884	\$23,252	\$765,857	\$200,980	\$32,666	\$299,312	
Taxes Other Than Income	\$9,850,342	\$6,971,787	\$1,717,770	\$17,900	\$36,113	\$2,209	\$169,127	\$15,640	\$548,867	\$134,033	\$23,167	\$213,728	
Total Operating Expenses	\$50,901,657	\$37,316,882	\$8,378,283	\$85,466	\$155,869	\$12,568	\$797,212	\$66,088	\$2,475,338	\$599,778	\$105,705	\$908,468	
Income Before Taxes	\$15,211,420	\$9,893,634	\$3,322,203	\$33,846	-\$41,713	\$29,898	\$565,764	\$9,443	\$730,892	\$147,997	\$64,526	\$454,929	
Interest Expense	\$4,506,689	\$3,119,345	\$831,785	\$8,665	\$16,603	\$852	\$80,901	\$7,240	\$266,151	\$62,676	\$11,123	\$101,348	
<u>Income Taxes:</u>													
State Income Taxes	\$0												
Federal Income Taxes	21.00%	\$2,247,994	\$1,422,601	\$522,988	\$5,288	(\$12,246)	\$6,100	\$101,821	\$463	\$97,596	\$17,917	\$11,215	\$74,252
Total Deferred Income Taxes		(\$4,867,354)	(\$3,080,214)	(\$1,132,373)	(\$11,449)	\$26,516	(\$13,207)	(\$220,463)	(\$1,002)	(\$211,314)	(\$38,795)	(\$24,282)	(\$160,771)
Total Income Taxes	(\$2,619,360)	(\$1,657,613)	(\$609,385)	(\$6,161)	\$14,270	(\$7,107)	(\$118,642)	(\$539)	(\$113,718)	(\$20,877)	(\$13,067)	(\$86,518)	
Net Income	\$17,830,780	\$11,551,247	\$3,931,588	\$40,007	(\$55,983)	\$37,005	\$684,406	\$9,982	\$844,611	\$168,875	\$77,594	\$541,447	
Total Rate Base	\$302,393,628	\$209,304,472	\$55,811,800	\$581,437	\$1,114,038	\$57,140	\$5,428,393	\$485,763	\$17,858,438	\$4,205,495	\$746,333	\$6,800,320	
Rate of Return	5.90%	5.52%	7.04%	6.88%	-5.03%	64.76%	12.61%	2.06%	4.73%	4.02%	10.40%	7.96%	
Relative Rate of Return	1.00	0.94	1.19	1.17	-0.85	10.98	2.14	0.35	0.80	0.68	1.76	1.35	

Atmos Energy Corporation
CURB - Peak & Average CCOSS
(Rate Base)

Acct. No.	Atmos Allocation Factor	Atmos Allocation Name	TAI Alloc. No.	Total Company	Residential Sales	Com/PA Sales	Schools Sales	Industrial Sales	SGS Sales	Irrigation Sales	Interruptible Sales	Firm Transport	Schools Transport	Irrigation Transport	Interruptible Transport	
Plant in Service																
Intangible Plant:																
30100	Organization	99.00	-	\$0												
30200	Franchises & Consents	27.20	PTD Plant	\$37,160	\$26,183	\$6,478	\$68	\$138	\$8	\$651	\$61	\$2,130	\$521	\$90	\$832	
30300	Misc Intangible Plant	27.20	PTD Plant	\$3,918	\$2,760	\$683	\$7	\$15	\$1	\$69	\$6	\$225	\$55	\$9	\$88	
Total Intangible Plant:				\$41,078	\$28,944	\$7,161	\$75	\$152	\$9	\$720	\$67	\$2,355	\$576	\$99	\$920	
Production Plant:																
Total Production Plant				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Storage Plant:																
35010	Land	2.91	Winter Peak Month (Sales)	\$49,164	\$35,690	\$12,805	\$131	\$251	\$0	\$288	\$0	\$0	\$0	\$0	\$0	
35020	Rights of Way	2.91	Winter Peak Month (Sales)	\$568,935	\$413,006	\$148,179	\$1,518	\$2,901	\$3	\$3,328	\$0	\$0	\$0	\$0	\$0	
35100	Structures and Improvements	2.91	Winter Peak Month (Sales)	\$102,923	\$74,715	\$26,806	\$275	\$525	\$1	\$602	\$0	\$0	\$0	\$0	\$0	
35120	Compression Station Equipment	99.00	-	\$0												
35130	Meas. & Reg. Sta. Structures	99.00	-	\$0												
35140	Other Structures	99.00	-	\$0												
35200	Wells \ Rights of Way	2.91	Winter Peak Month (Sales)	\$1,384,973	\$1,005,390	\$360,717	\$3,696	\$7,061	\$7	\$8,102	\$0	\$0	\$0	\$0	\$0	
35210	Well Construction	99.00	-	\$0												
35220	Reservoirs	2.91	Winter Peak Month (Sales)	\$36,515	\$26,507	\$9,510	\$97	\$186	\$0	\$214	\$0	\$0	\$0	\$0	\$0	
35230	Cushion Gas	99.00	-	\$0												
35210	Leaseholds	99.00	-	\$0												
35220	Storage Rights	99.00	-	\$0												
35300	Pipelines	2.91	Winter Peak Month (Sales)	\$1,151,475	\$835,888	\$299,902	\$3,073	\$5,871	\$6	\$6,736	\$0	\$0	\$0	\$0	\$0	
35400	Compressor Station Equipment	2.91	Winter Peak Month (Sales)	\$2,742,281	\$1,990,697	\$714,228	\$7,319	\$13,981	\$15	\$16,041	\$0	\$0	\$0	\$0	\$0	
35500	Meas & Reg. Equipment	2.91	Winter Peak Month (Sales)	\$162,303	\$58,232	\$597	\$1,140	\$1	\$1,308	\$0	\$0	\$0	\$0	\$0	\$0	
35600	Purification Equipment	2.91	Winter Peak Month (Sales)	\$504,545	\$366,263	\$131,409	\$1,347	\$2,572	\$3	\$2,951	\$0	\$0	\$0	\$0	\$0	
35700	Other Equipment	2.91	Winter Peak Month (Sales)	\$206,100	\$149,614	\$53,679	\$550	\$1,051	\$1	\$1,206	\$0	\$0	\$0	\$0	\$0	
Total Storage Plant				\$6,970,493	\$5,060,073	\$1,815,466	\$18,603	\$35,538	\$37	\$40,775	\$0	\$0	\$0	\$0	\$0	
Transmission:																
36500	Land & Land Rights	2.93	P&A	\$4,761	\$2,861	\$1,038	\$11	\$19	\$0	\$120	\$10	\$440	\$86	\$18	\$160	
36520	Rights of Way	99.00	-	\$0												
36600	Structures & Improvements	99.00	-	\$0												
36700	Mains Cathodic Protection	2.93	P&A	\$1,511,139	\$907,880	\$329,449	\$3,384	\$5,873	\$11	\$38,094	\$3,076	\$139,715	\$27,402	\$5,593	\$50,662	
36710	Mains - Steel	2.93	P&A	\$115,655	\$69,484	\$25,214	\$259	\$449	\$1	\$2,916	\$235	\$10,693	\$2,097	\$428	\$3,877	
36800	Compressor Station Equipment	99.00	-	\$0												
36900	Meas. & Reg. Equipment	2.93	P&A	\$147,567	\$88,657	\$32,172	\$330	\$574	\$1	\$3,720	\$300	\$13,644	\$2,676	\$546	\$4,947	
37100	Other Equipment	99.00	-	\$0												
Total Transmission Plant				\$1,779,122	\$1,068,882	\$387,873	\$3,984	\$6,914	\$13	\$44,850	\$3,622	\$164,491	\$32,261	\$6,584	\$59,647	
Distribution:																
37400	Land & Land Rights	15.20	Dist. Plant excl. 374, 380-387	\$670,926	\$402,609	\$146,099	\$1,507	\$2,604	\$5	\$17,615	\$1,365	\$61,963	\$12,151	\$2,528	\$22,479	
37420	Land Rights	15.20	Dist. Plant excl. 374, 380-387	\$333,483	\$200,117	\$72,618	\$749	\$1,294	\$3	\$8,756	\$678	\$30,799	\$6,040	\$1,257	\$11,173	
37500	Structures & Improvements	3.00	Peak Month (NCP)	\$152,685	\$93,728	\$33,628	\$413	\$658	\$3	\$8,047	\$0	\$12,435	\$3,098	\$674	\$0	
37510	Structures & Improvements T.B.	99.00	-	\$0												
37520	Land Rights	99.00	-	\$0												
37530	Improvements	99.00	-	\$0												
37600	Mains Cathodic Protection			\$4,648,541												
	Customer		Bills	8	0.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Demand		P&A	72	100.00%	\$4,648,541	\$2,792,806	\$1,013,445	\$10,410	\$18,066	\$34	\$117,185	\$9,464	\$429,788	\$84,293	
37610	Mains - Steel			\$64,517,494												
	Customer		Bills	8	0.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Demand		P&A	72	100.00%	\$64,517,494	\$38,761,593	\$14,065,693	\$144,476	\$250,745	\$466	\$1,626,422	\$131,349	\$5,965,059	\$1,169,908	
37620	Mains - Plastic			\$152,244,888												
	Customer		Bills	8	0.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Demand		P&A	72	100.00%	\$152,244,888	\$91,467,507	\$33,191,461	\$340,927	\$591,694	\$1,099	\$3,837,941	\$309,949	\$14,076,024	\$2,760,685	

**Atmos Energy Corporation
CURB - Peak & Average CCOSS
(Rate Base)**

Acct. No.	Atmos Allocation Factor	Atmos Allocation Name	TAI Alloc. No.	Total Company	Residential Sales	Com/PA Sales	Schools Sales	Industrial Sales	SGS Sales	Irrigation Sales	Interruptible Sales	Firm Transport	Schools Transport	Irrigation Transport	Interruptible Transport	
37630	Anode			\$6,382,564												
	Customer	Bills	8	0.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Demand	P&A	72	100.00%	\$6,382,564	\$3,834,593	\$1,391,486	\$14,293	\$24,806	\$46	\$160,898	\$12,994	\$590,109	\$115,736	\$23,621	\$213,982
37640	Leak Clamp			\$5,097,961												
	Customer	Bills	8	0.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
	Demand	P&A	72	100.00%	\$5,097,961	\$3,062,814	\$1,111,425	\$11,416	\$19,813	\$37	\$128,514	\$10,379	\$471,339	\$92,442	\$18,867	\$170,914
37800	Meas & Reg. Sta. Equip - General			\$6,065,044												
	Commodity	Total Throughput	1	47.71%	\$2,893,379	\$1,591,393	\$585,884	\$6,036	\$9,157	\$29	\$136,355	\$12,348	\$288,445	\$42,140	\$18,258	\$203,337
	Demand	Peak Month (NCP)	21	52.29%	\$3,171,666	\$1,946,986	\$698,545	\$8,571	\$13,674	\$62	\$167,151	\$0	\$258,317	\$64,353	\$14,007	\$0
37900	Meas & Reg. Sta. Equip - City Gate			\$3,955,069												
	Commodity	Total Throughput	1	47.71%	\$1,886,798	\$1,037,761	\$382,060	\$3,936	\$5,971	\$19	\$88,918	\$8,052	\$188,098	\$27,480	\$11,906	\$132,598
	Demand	Peak Month (NCP)	21	52.29%	\$2,068,271	\$1,269,646	\$455,527	\$5,589	\$8,917	\$41	\$109,001	\$0	\$168,451	\$41,965	\$9,134	\$0
37908	Meas & Reg. Sta. Equipment			\$84,559												
	Commodity	Total Throughput	1	47.71%	\$26,028	\$14,316	\$5,270	\$54	\$82	\$0	\$1,227	\$111	\$2,595	\$379	\$164	\$1,829
	Demand	Peak Month (NCP)	21	52.29%	\$28,531	\$17,514	\$6,284	\$77	\$123	\$1	\$1,504	\$0	\$2,324	\$579	\$126	\$0
38000	Services	99.00	13		\$103,169,700	\$94,905,694	\$7,593,536	\$48,934	\$10,225	\$54,047	\$184,050	\$35,788	\$143,150	\$171,634	\$18,259	\$4,382
38100	Meters	99.00	28		\$38,111,186	\$29,168,021	\$6,768,151	\$91,183	\$41,572	\$20,454	\$412,912	\$59,381	\$773,716	\$705,568	\$42,846	\$27,382
38200	Meter Installations	99.00	29		\$33,371,307	\$25,540,401	\$5,926,398	\$79,843	\$36,402	\$17,910	\$361,558	\$51,996	\$677,489	\$617,817	\$37,517	\$23,977
38300	House Regulators	99.00	26		\$2,392,345	\$2,172,064	\$206,549	\$1,062	\$260	\$1,290	\$7,735	\$547	\$475	\$1,725	\$638	\$0
38400	House Reg. Installations	99.00	26		\$209,461	\$190,175	\$18,084	\$93	\$23	\$113	\$677	\$48	\$42	\$151	\$56	\$0
38500	Ind. Meas. & Reg. Sta. Equipment	99.00	73		\$1,860,687	\$0	\$0	\$0	\$531,625	\$0	\$0	\$50,631	\$37,973	\$0	\$0	\$1,240,458
38700	Other Prop. On Cust. Prem	3.00	21		\$786,744	\$482,958	\$173,277	\$2,126	\$3,392	\$15	\$41,463	\$0	\$64,076	\$15,963	\$3,474	\$0
Total Distribution Plant					\$424,024,646	\$298,952,697	\$73,845,420	\$771,694	\$1,571,103	\$95,671	\$7,417,930	\$695,079	\$24,242,667	\$5,934,107	\$1,022,753	\$9,475,526
General:																
38900	Land & Land Rights	27.20	64		\$152,535	\$107,476	\$26,592	\$278	\$565	\$34	\$2,673	\$250	\$8,743	\$2,137	\$369	\$3,416
39000	Structures & Improvements	27.20	64		\$2,194,390	\$1,546,168	\$382,563	\$3,997	\$8,132	\$493	\$38,460	\$3,601	\$125,783	\$30,748	\$5,305	\$49,140
39001	Structures Frame	99.00	-		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39002	Structures-Brick	99.00	-		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39003	Improvements	27.20	64		\$1,513	\$1,066	\$264	\$3	\$6	\$0	\$27	\$2	\$87	\$21	\$4	\$34
39004	Air Conditioning Equipment	27.20	64		\$74,163	\$52,256	\$12,929	\$135	\$275	\$17	\$1,300	\$122	\$4,251	\$1,039	\$179	\$1,661
39009	Improvement to Leased Premises	27.20	64		\$44,062	\$31,046	\$7,682	\$80	\$163	\$10	\$772	\$72	\$2,526	\$617	\$107	\$987
39100	Office Furniture & Equipment	25.20	62		\$247,264	\$193,120	\$35,034	\$338	\$517	\$74	\$3,113	\$214	\$9,183	\$2,151	\$400	\$3,118
39102	Remittance Processing Equip	99.00	-		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39103	Office Machines	25.20	62		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39200	Transportation Equipment	25.20	62		\$208,241	\$162,643	\$29,505	\$285	\$436	\$62	\$2,622	\$180	\$7,734	\$1,812	\$337	\$2,626
39201	Trucks	99.00	-		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39202	Trailers	99.00	-		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39300	Stores Equipment	27.20	64		\$14,629	\$10,308	\$2,550	\$27	\$54	\$3	\$256	\$24	\$839	\$205	\$35	\$328
39400	Tools, Shop & Garage Equipment	27.20	64		\$5,411,451	\$3,812,911	\$943,415	\$9,858	\$20,055	\$1,216	\$94,843	\$8,880	\$310,185	\$75,825	\$13,082	\$121,181
39500	Laboratory Equipment	27.20	64		\$12,933	\$9,113	\$2,255	\$24	\$48	\$3	\$227	\$21	\$741	\$181	\$31	\$290
39600	Power Operated Equipment	27.20	64		\$18,239	\$12,851	\$3,180	\$33	\$68	\$4	\$320	\$30	\$1,045	\$256	\$44	\$408
39603	Ditchers	27.20	64		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39604	Backhoes	27.20	64		\$12,569	\$8,856	\$2,191	\$23	\$47	\$3	\$220	\$21	\$720	\$176	\$30	\$281
39605	Welders	27.20	64		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39700	Communication Equipment	25.20	62		\$1,249,255	\$975,705	\$177,004	\$1,707	\$2,613	\$374	\$15,730	\$1,082	\$46,394	\$10,870	\$2,021	\$15,755
39701	Communication Equipment - Mobile Radios	99.00	-		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39702	Communication Equipment - Fixed Radios	25.20	62		\$250,007	\$195,263	\$35,423	\$342	\$523	\$75	\$3,148	\$216	\$9,285	\$2,175	\$405	\$3,153
39800	Miscellaneous Equipment	27.20	64		\$289,025	\$203,647	\$50,388	\$527	\$1,071	\$65	\$5,066	\$474	\$16,567	\$4,050	\$699	\$6,472
39900	Other Tangible Property	27.20	64		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39901	Other Tangible Property - Servers - H/W	27.20	64		\$30,886	\$21,762	\$5,385	\$56	\$114	\$7	\$541	\$51	\$1,770	\$433	\$75	\$692
39902	Other Tangible Property - Servers - S/W	27.20	64		\$15,235	\$10,735	\$2,656	\$28	\$56	\$3	\$267	\$25	\$873	\$213	\$37	\$341
39903	Other Tangible Property - Network - H/W	27.20	64		\$1,399,914	\$986,380	\$244,057	\$2,550	\$5,188	\$315	\$24,535	\$2,297	\$80,243	\$19,616	\$3,384	\$31,349
39904	Other Tang. Property - CPU	99.00	-		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39905	Other Tangible Property - MF - Hardware	99.00	-		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39906	Other Tang. Property - PC Hardware	27.20	64		\$720,067	\$507,360	\$125,534	\$1,312	\$2,669	\$162	\$12,620	\$1,182	\$41,274	\$10,090	\$1,741	\$16,125
39907	Other Tang. Property - PC Software	27.20	64		\$28,173	\$19,851	\$4,912	\$51	\$104	\$6	\$494	\$46	\$1,615	\$395	\$68	\$631
39908	Other Tang. Property - Mainframe S/W	27.20	64		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39909	Other Tang. Property - Application Software	99.00	-		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39924	Other Tang. Property - General Startup Costs	99.00	-		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total General Plant					\$12,374,552	\$8,868,517	\$2,093,519	\$21,653	\$42,704	\$2,927	\$207,234	\$18,790	\$669,859	\$163,011	\$28,352	\$257,987

**Atmos Energy Corporation
CURB - Peak & Average CCOSS
(Rate Base)**

Acct. No.		Atmos Allocation Factor	Atmos Allocation Name	TAI Alloc. No.	Total Company	Residential Sales	Com/PA Sales	Schools Sales	Industrial Sales	SGS Sales	Irrigation Sales	Interruptible Sales	Firm Transport	Schools Transport	Irrigation Transport	Interruptible Transport
37530	Improvements	99.00	-		\$0											
37600	Mains Cathodic Protection	15.60	Mains Gross Plant	71	\$3,071,890	\$1,845,567	\$669,714	\$6,879	\$11,939	\$22	\$77,439	\$6,254	\$284,016	\$55,703	\$11,369	\$102,988
37610	Mains - Steel	15.60	Mains Gross Plant	71	\$12,570,617	\$7,552,326	\$2,740,566	\$28,150	\$48,855	\$91	\$316,893	\$25,592	\$1,162,235	\$227,945	\$46,523	\$421,442
37620	Mains - Plastic	15.60	Mains Gross Plant	71	\$29,547,362	\$17,751,818	\$6,441,728	\$66,166	\$114,835	\$213	\$744,859	\$60,154	\$2,731,845	\$535,788	\$109,352	\$990,604
37630	Anode	15.60	Mains Gross Plant	71	\$3,351,017	\$2,013,264	\$730,567	\$7,504	\$13,024	\$24	\$84,476	\$6,822	\$309,823	\$60,765	\$12,402	\$112,346
37640	Leak Clamp	15.60	Mains Gross Plant	71	\$1,937,499	\$1,164,034	\$422,401	\$4,339	\$7,530	\$14	\$48,842	\$3,944	\$179,134	\$35,133	\$7,170	\$64,957
37800	Meas & Reg. Sta. Equip - General	15.60	Corresponding Gross Plant		\$2,279,361	\$1,329,791	\$482,713	\$5,489	\$8,580	\$34	\$114,064	\$4,640	\$205,484	\$40,022	\$12,126	\$76,418
37900	Meas & Reg. Sta. Equip - City Gate	15.60	Corresponding Gross Plant		\$1,135,493	\$662,452	\$240,470	\$2,735	\$4,274	\$17	\$56,822	\$2,312	\$102,364	\$19,938	\$6,040	\$38,068
37908	Meas & Reg. Sta. Equipment	15.60	Corresponding Gross Plant		\$12,129	\$7,076	\$2,569	\$29	\$46	\$0	\$607	\$25	\$1,093	\$213	\$65	\$407
38000	Services	15.60	Meters/Services	13	\$39,877,139	\$36,682,937	\$2,935,053	\$18,914	\$3,952	\$20,890	\$71,139	\$13,833	\$55,330	\$66,340	\$7,057	\$1,694
38100	Meters	15.60	Meter Investment	28	\$19,930,979	\$15,253,978	\$3,539,535	\$47,686	\$21,741	\$10,697	\$215,940	\$31,054	\$404,630	\$368,990	\$22,407	\$14,320
38200	Meter Installations	15.60	Meter Installations	29	\$6,071,384	\$4,646,674	\$1,078,215	\$14,526	\$6,623	\$3,258	\$65,780	\$9,640	\$123,258	\$112,402	\$6,826	\$4,362
38300	House Regulators	15.60	Small Meter Investment	26	\$509,797	\$462,857	\$44,015	\$226	\$55	\$275	\$1,648	\$117	\$101	\$368	\$136	\$0
38400	House Reg. Installations	15.60	Small Meter Investment	26	\$172,955	\$157,029	\$14,932	\$77	\$19	\$93	\$559	\$40	\$34	\$125	\$46	\$0
38500	Ind. Meas. & Reg. Sta. Equipment	15.60	Industrial Bills	73	\$819,243	\$0	\$0	\$0	\$234,069	\$0	\$0	\$22,292	\$16,719	\$0	\$0	\$546,162
38700	Other Prop. On Cust. Prem	15.60	Peak Month (NCP)	21	\$650,030	\$399,033	\$143,166	\$1,757	\$2,803	\$13	\$34,258	\$0	\$52,942	\$13,189	\$2,871	\$0
Total Distribution Plant					\$122,194,765	\$90,085,287	\$19,542,104	\$205,113	\$479,399	\$35,645	\$1,843,373	\$186,812	\$5,651,473	\$1,541,861	\$245,441	\$2,378,257
General:																
38900	Land & Land Rights	99.00	-		\$0											
39000	Structures & Improvements	23.60	PTD Plant	64	\$810,322	\$570,953	\$141,269	\$1,476	\$3,003	\$182	\$14,202	\$1,330	\$46,448	\$11,354	\$1,959	\$18,146
39030	Improvements	23.60	PTD Plant	64	\$758	\$534	\$132	\$1	\$3	\$0	\$13	\$1	\$43	\$11	\$2	\$17
39040	Air Conditioning Equipment	23.60	PTD Plant	64	\$6,595	\$4,647	\$1,150	\$12	\$24	\$1	\$116	\$11	\$378	\$92	\$16	\$148
39090	Improvement to Leased Premises	23.60	PTD Plant	64	\$27,543	\$19,407	\$4,802	\$50	\$102	\$6	\$483	\$45	\$1,579	\$386	\$67	\$617
39100	Office Furniture & Equipment	23.60	Payroll	62	\$172,370	\$134,626	\$24,423	\$236	\$361	\$52	\$2,170	\$149	\$6,401	\$1,500	\$279	\$2,174
39130	Remittance Processing Equip	23.60	General Plant	60	\$290	\$208	\$49	\$1	\$1	\$0	\$5	\$0	\$16	\$4	\$1	\$6
39200	Transportation Equipment	23.60	Payroll	62	\$179,150	\$139,921	\$25,383	\$245	\$375	\$54	\$2,256	\$155	\$6,653	\$1,559	\$290	\$2,259
39300	Stores Equipment	23.60	PTD Plant	64	\$2,763	\$1,947	\$482	\$5	\$10	\$1	\$48	\$5	\$158	\$39	\$7	\$62
39400	Tools & Shop Equipment	23.60	PTD Plant	64	\$1,943,813	\$1,369,612	\$338,878	\$3,541	\$7,204	\$437	\$34,068	\$3,190	\$111,420	\$27,237	\$4,699	\$43,528
39500	Laboratory Equipment	23.60	PTD Plant	64	\$12,721	\$8,963	\$2,218	\$23	\$47	\$3	\$223	\$21	\$729	\$178	\$31	\$285
39600	Power Operated Equipment	23.60	PTD Plant	64	\$26,916	\$18,965	\$4,693	\$49	\$100	\$6	\$472	\$44	\$1,543	\$377	\$65	\$603
39630	Ditchers	23.60	PTD Plant	64	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39640	Backhoes	23.60	PTD Plant	64	\$1,430	\$1,007	\$249	\$3	\$5	\$0	\$25	\$2	\$82	\$20	\$3	\$32
39650	Welders	23.60	PTD Plant	64	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39700	Communication Equipment	23.60	Payroll	62	\$632,160	\$493,736	\$89,569	\$864	\$1,322	\$189	\$7,960	\$547	\$23,477	\$5,500	\$1,023	\$7,973
39710	Communication Equipment - Mobile Radios	99.00	-		\$0											
39720	Communication Equipment - Fixed Radios	23.60	Payroll	62	\$0											
39750	Communication Equip. - Telemetry	99.00	-		\$0											
39800	Miscellaneous Equipment	23.60	PTD Plant	64	\$149,935	\$105,644	\$26,139	\$273	\$556	\$34	\$2,628	\$246	\$8,594	\$2,101	\$362	\$3,358
39900	Other Tangible Property	23.60	PTD Plant	64	\$0											
39910	Other Tangible Property - Servers - H/W	23.60	PTD Plant	64	\$23,826	\$16,788	\$4,154	\$43	\$88	\$5	\$418	\$39	\$1,366	\$334	\$58	\$534
39920	Other Tangible Property - Servers - S/W	23.60	PTD Plant	64	\$10,347	\$7,290	\$1,804	\$19	\$38	\$2	\$181	\$17	\$593	\$145	\$25	\$232
39930	Other Tangible Property - Network - H/W	23.60	PTD Plant	64	\$608,368	\$428,657	\$106,061	\$1,108	\$2,255	\$137	\$10,662	\$998	\$34,872	\$8,524	\$1,471	\$13,623
39950	Other Tangible Property - MF - Hardware	99.00	-		\$0											
39960	Other Tang. Property - PC Hardware	23.60	PTD Plant	64	\$341,568	\$240,669	\$59,548	\$622	\$1,266	\$77	\$5,986	\$560	\$19,579	\$4,786	\$826	\$7,649
39970	Other Tang. Property - PC Software	23.60	PTD Plant	64	\$22,905	\$16,139	\$3,993	\$42	\$85	\$5	\$401	\$38	\$1,313	\$321	\$55	\$513
39980	Other Tang. Property - Application Software	23.60	General Plant	60	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Retirement Work in Progress	23.60	General Plant	60	(\$419,828)	(\$300,880)	(\$71,026)	(\$735)	(\$1,449)	(\$99)	(\$7,031)	(\$637)	(\$22,726)	(\$5,530)	(\$962)	(\$8,753)
Total General Plant					\$4,553,952	\$3,278,833	\$763,969	\$7,878	\$15,396	\$1,092	\$75,287	\$6,762	\$242,517	\$58,938	\$10,275	\$93,005
Total Direct Reserve For Depreciation					\$130,824,726	\$96,268,521	\$21,350,774	\$223,698	\$515,072	\$36,755	\$1,950,765	\$194,434	\$5,933,416	\$1,608,475	\$257,292	\$2,485,525
	Shared Services General Office:	23.60	General Plant	60	\$3,368,613	\$2,414,197	\$569,900	\$5,894	\$11,625	\$797	\$56,413	\$5,115	\$182,350	\$44,375	\$7,718	\$70,230
	Shared Services Customer Support:	23.60	General Plant	60	\$3,035,038	\$2,175,132	\$513,466	\$5,311	\$10,474	\$718	\$50,827	\$4,609	\$164,293	\$39,981	\$6,954	\$63,275
	Colorado-Kansas General Office:	23.60	General Plant	60	\$461,650	\$330,852	\$78,102	\$808	\$1,593	\$109	\$7,731	\$701	\$24,990	\$6,081	\$1,058	\$9,625
Total Reserve For Depreciation					\$137,690,027	\$101,188,702	\$22,512,241	\$235,711	\$538,764	\$38,379	\$2,065,736	\$204,859	\$6,305,048	\$1,698,912	\$273,021	\$2,628,654

Atmos Energy Corporation
CURB - Peak & Average CCOSS
(Rate Base)

Acct. No.	Atmos Allocation Factor	Atmos Allocation Name	TAI Alloc. No.	Total Company	Residential Sales	Com/PA Sales	Schools Sales	Industrial Sales	SGS Sales	Irrigation Sales	Interruptible Sales	Firm Transport	Schools Transport	Irrigation Transport	Interruptible Transport
Rate Base Additions:															
Construction Work in Progress	15.2	Distribution Plant	50	\$21,902,162	\$15,447,274	\$3,812,073	\$39,838	\$81,143	\$4,953	\$382,703	\$35,882	\$1,250,378	\$306,301	\$52,758	\$488,859
Materials and Supplies	99	-		\$0											
Gas Storage Inventory	99	Winter Peak Month (Sales)	17	\$11,880,474	\$8,624,364	\$3,094,272	\$31,707	\$60,572	\$63	\$69,496	\$0	\$0	\$0	\$0	\$0
Prepayments - KS Direct	16.2	O&M Expenses less A&G	51	\$1,974,534	\$1,454,523	\$326,338	\$3,254	\$5,440	\$444	\$31,140	\$2,203	\$94,001	\$21,149	\$4,013	\$32,030
Cash Working Capital	99	-		\$0											
Total Rate Base Additions				\$35,757,170	\$25,526,161	\$7,232,683	\$74,799	\$147,155	\$5,460	\$483,339	\$38,085	\$1,344,379	\$327,450	\$56,771	\$520,889
Rate Base Deductions:															
Customer Advances	8	Customer Deposits Factor	43	(\$583,553)	(\$568,801)	(\$11,010)	\$0	\$0	\$0	(\$3,402)	\$0	(\$340)	\$0	\$0	\$0
Customer Deposits	8	Customer Deposits Factor	43	(\$651,500)	(\$635,030)	(\$12,292)	\$0	\$0	\$0	(\$3,798)	\$0	(\$380)	\$0	\$0	\$0
ADIT - KS Direct	20.2	Gross Plant	57	(\$24,551,823)	(\$17,324,167)	(\$4,305,129)	(\$44,940)	(\$91,149)	(\$5,452)	(\$424,854)	(\$39,503)	(\$1,381,463)	(\$337,617)	(\$58,273)	(\$539,276)
Regulatory Liability	20.2	Gross Plant	57	(\$29,016,845)	(\$20,474,760)	(\$5,088,064)	(\$53,113)	(\$107,725)	(\$6,443)	(\$502,118)	(\$46,687)	(\$1,632,698)	(\$399,016)	(\$68,870)	(\$637,350)
Total Rate Base Deductions				(\$54,803,722)	(\$39,002,759)	(\$9,416,495)	(\$98,053)	(\$198,874)	(\$11,895)	(\$934,173)	(\$86,190)	(\$3,014,881)	(\$736,633)	(\$127,143)	(\$1,176,626)
Total Other Rate Base				(\$19,046,552)	(\$13,476,598)	(\$2,183,812)	(\$23,254)	(\$51,719)	(\$6,435)	(\$450,834)	(\$48,105)	(\$1,670,502)	(\$409,184)	(\$70,372)	(\$655,737)
Interest on Customer Deposits	8	Customer Deposits Factor	43	\$1,368	\$1,334	\$26	\$0	\$0	\$0	\$8	\$0	\$1	\$0	\$0	\$0
Total Rate Base				\$302,393,629	\$209,304,472	\$55,811,800	\$581,437	\$1,114,038	\$57,140	\$5,428,393	\$485,763	\$17,858,438	\$4,205,495	\$746,333	\$6,800,320

Atmos Energy Corporation
CURB - Peak & Average CCOSS
(Expenses)

Acct. No.	Atmos Allocation Factor	Atmos Allocation Name	TAI Alloc. No.	Total Company	Residential Sales	Com/PA Sales	Schools Sales	Industrial Sales	SGS Sales	Irrigation Sales	Interruptible Sales	Firm Transport	Schools Transport	Irrigation Transport	Interruptible Transport	
8740	Mains & Services															
		Composite of Accts. 376 & 380	46	<u>\$8,296,136</u>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
		Customer Demand		0.00%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
		Composite of Accts. 376 & 380	46	100.00%	\$8,296,136	\$5,796,981	\$1,440,872	\$14,082	\$22,597	\$1,376	\$149,476	\$12,588	\$535,089	\$108,489	\$21,728	\$192,857
8750	99.00	Peak Month (NCP)	21		\$58,339	\$35,812	\$12,849	\$158	\$252	\$1	\$3,075	\$0	\$4,751	\$1,184	\$258	\$0
8760	99.00	-			\$0											
8770	Measuring and Regulating Sta. Exp. - City Gate															
		Total Throughput	1	<u>\$43,106</u>	\$20,564	\$11,310	\$4,164	\$43	\$65	\$0	\$969	\$88	\$2,050	\$299	\$130	\$1,445
		Peak Month (NCP)	21	47.71%	\$22,542	\$13,838	\$4,965	\$61	\$97	\$0	\$1,188	\$0	\$1,836	\$457	\$100	\$1,445
8780	99.00	Small Meter Investment	26	52.29%	\$192,005	\$174,326	\$16,577	\$85	\$21	\$104	\$621	\$44	\$38	\$138	\$51	\$0
8790	99.00	Meter Installations	29		\$87,067	\$66,636	\$15,462	\$208	\$95	\$47	\$943	\$136	\$1,768	\$1,612	\$98	\$63
8800	15.60	Distribution Plant	50		\$1,902,175	\$1,341,576	\$331,074	\$3,460	\$7,047	\$430	\$33,237	\$3,116	\$108,594	\$26,602	\$4,582	\$42,457
8810	15.60	Distribution Plant	50		\$242,506	\$171,036	\$42,208	\$441	\$898	\$55	\$4,237	\$397	\$13,845	\$3,391	\$584	\$5,413
		Maintenance														
8850	15.60	Peak Month (NCP)	21		\$116,065	\$71,249	\$25,563	\$314	\$500	\$2	\$6,117	\$0	\$9,453	\$2,355	\$513	\$0
8860	99.00	-			\$0											
8870	99.00	Peak Month (NCP)	21		\$352,402	\$216,328	\$77,615	\$952	\$1,519	\$7	\$18,572	\$0	\$28,701	\$7,150	\$1,556	\$0
8890	99.00	-			\$0											
8900	99.00	Peak Month (NCP)	21		\$193,004	\$118,479	\$42,508	\$522	\$832	\$4	\$10,172	\$0	\$15,719	\$3,916	\$852	\$0
8910	99.00	-			\$0											
8920	99.00	-			\$0											
8930	99.00	Distribution Plant - Cust	66		\$3,989	\$3,384	\$457	\$5	\$14	\$2	\$22	\$4	\$36	\$33	\$2	\$29
8940	99.00	Distribution Plant - Cust	66		\$322,745	\$273,845	\$36,962	\$398	\$1,117	\$169	\$1,742	\$357	\$2,942	\$2,697	\$179	\$2,336
8950	99.00	-			\$0											
		Total Distribution			\$12,877,013	\$9,046,913	\$2,237,454	\$22,678	\$39,015	\$2,437	\$249,317	\$18,466	\$785,967	\$173,306	\$33,221	\$268,239
		Customer Accounts:														
9010	99.00	Bills	8		\$22,141	\$20,414	\$1,585	\$12	\$2	\$12	\$43	\$0	\$27	\$38	\$4	\$5
9020	99.00	Bills	8		\$974,272	\$898,275	\$69,722	\$511	\$99	\$512	\$1,874	\$9	\$1,180	\$1,675	\$183	\$230
9030	99.00	Bills	8		\$27,876	\$25,702	\$1,995	\$15	\$3	\$15	\$54	\$0	\$34	\$48	\$5	\$7
9040	99.00	Bills	8		\$1,306,815	\$1,204,880	\$93,520	\$685	\$132	\$686	\$2,514	\$13	\$1,583	\$2,247	\$246	\$308
9050	99.00	Bills	8		\$4,892	\$4,511	\$350	\$3	\$0	\$3	\$9	\$0	\$6	\$8	\$1	\$1
		Total Customer Accounts			\$2,335,997	\$2,153,782	\$167,172	\$1,225	\$236	\$1,227	\$4,493	\$22	\$2,830	\$4,017	\$440	\$551
		Customer Service and Information:														
9070	99.00	Bills	8		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9080	99.00	Bills	8		\$9,581	\$8,833	\$686	\$5	\$1	\$5	\$18	\$0	\$12	\$16	\$2	\$2
9090	99.00	Bills	8		\$13,221	\$12,189	\$946	\$7	\$1	\$7	\$25	\$0	\$16	\$23	\$2	\$3
9100	99.00	Bills	8		\$2,990	\$2,757	\$214	\$2	\$0	\$2	\$6	\$0	\$4	\$5	\$1	\$1
		Total Customer Service and Information			\$25,792	\$23,780	\$1,846	\$14	\$3	\$14	\$50	\$0	\$31	\$44	\$5	\$6
		Sales:														
9110	99.00	Bills	8		\$55,187	\$50,882	\$3,949	\$29	\$6	\$29	\$106	\$1	\$67	\$95	\$10	\$13
9120	99.00	Bills	8		\$20,957	\$19,322	\$1,500	\$11	\$2	\$11	\$40	\$0	\$25	\$36	\$4	\$5
9130	99.00	Bills	8		\$3,304	\$3,046	\$236	\$2	\$0	\$2	\$6	\$0	\$4	\$6	\$1	\$1
9160	99.00	Bills	8		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total Sales			\$79,448	\$73,251	\$5,686	\$42	\$8	\$42	\$153	\$1	\$96	\$137	\$15	\$19
		Administrative & General:														
		Operation														
9200	25.60	Payroll	62		\$7,308	\$5,707	\$1,035	\$10	\$15	\$2	\$92	\$6	\$271	\$64	\$12	\$92
9210	27.60	PTD Plant	64		\$4,540	\$3,199	\$792	\$8	\$17	\$1	\$80	\$7	\$260	\$64	\$11	\$102
9220	25.60	Payroll	62		\$9,956,807	\$7,776,559	\$1,410,758	\$13,607	\$20,827	\$2,980	\$125,368	\$8,621	\$369,768	\$86,634	\$16,110	\$125,574
9230	25.60	Payroll	62		\$137,458	\$107,359	\$19,476	\$188	\$288	\$41	\$1,731	\$119	\$5,105	\$1,196	\$222	\$1,734
9240	27.60	PTD Plant	64		\$101,995	\$71,866	\$17,781	\$186	\$378	\$23	\$1,788	\$167	\$5,846	\$1,429	\$247	\$2,284
9250	27.60	PTD Plant	64		\$28,787	\$20,284	\$5,019	\$52	\$107	\$6	\$505	\$47	\$1,650	\$403	\$70	\$645
9260	25.60	Payroll	62		(\$386,826)	(\$302,122)	(\$54,809)	(\$529)	(\$809)	(\$116)	(\$4,871)	(\$335)	(\$14,366)	(\$3,366)	(\$626)	(\$4,879)
9270	27.60	PTD Plant	64		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9280	25.60	Payroll	62		\$321,974	\$251,471	\$45,620	\$440	\$673	\$96	\$4,054	\$279	\$11,957	\$2,801	\$521	\$4,061
930.1	99.00	-			\$0											
930.2	25.60	Payroll	62		\$60,664	\$47,381	\$8,595	\$83	\$127	\$18	\$764	\$53	\$2,253	\$528	\$98	\$765
9310	99.00	-			\$0											
		Maintenance														
9320	99.00	-			\$0											
		Total A&G			\$10,232,708	\$7,981,703	\$1,454,268	\$14,046	\$21,622	\$3,053	\$129,510	\$8,965	\$382,746	\$89,753	\$16,665	\$130,377

Atmos Energy Corporation
CURB - Peak & Average CCOSS
(Expenses)

Acct. No.		Atmos Allocation Factor	Atmos Allocation Name	TAI Alloc. No.	Total Company	Residential Sales	Com/PA Sales	Schools Sales	Industrial Sales	SGS Sales	Irrigation Sales	Interruptible Sales	Firm Transport	Schools Transport	Irrigation Transport	Interruptible Transport
37600	Mains Cathodic Protection	15.2	Mains Gross Plant	71	\$105,522	\$63,397	\$23,005	\$236	\$410	\$1	\$2,660	\$215	\$9,756	\$1,913	\$391	\$3,538
37601	Mains - Steel	15.2	Mains Gross Plant	71	\$1,815,117	\$1,090,507	\$395,720	\$4,065	\$7,054	\$13	\$45,757	\$3,695	\$167,819	\$32,914	\$6,718	\$60,854
37602	Mains - Plastic	15.2	Mains Gross Plant	71	\$3,471,708	\$2,085,774	\$756,880	\$7,774	\$13,493	\$25	\$87,518	\$7,068	\$320,982	\$62,953	\$12,848	\$116,392
37603	Anode	15.2	Mains Gross Plant	71	\$425,717	\$255,767	\$92,812	\$953	\$1,655	\$3	\$10,732	\$867	\$39,360	\$7,720	\$1,576	\$14,273
37604	Leak Clamp	15.2	Mains Gross Plant	71	\$363,994	\$218,685	\$79,356	\$815	\$1,415	\$3	\$9,176	\$741	\$33,654	\$6,600	\$1,347	\$12,203
37800	Meas & Reg. Sta. Equip - General	15.2	Corresponding Gross Plant		\$187,448	\$109,358	\$39,697	\$451	\$706	\$3	\$9,380	\$382	\$16,898	\$3,291	\$997	\$6,284
37900	Meas & Reg. Sta. Equip - City Gate	15.2	Corresponding Gross Plant		\$112,337	\$65,538	\$23,790	\$271	\$423	\$2	\$5,622	\$229	\$10,127	\$1,972	\$598	\$3,766
37908	Meas & Reg. Sta. Equipment	15.2	Corresponding Gross Plant		\$1,549	\$904	\$328	\$4	\$6	\$0	\$78	\$3	\$140	\$27	\$8	\$52
38000	Services	15.2	Meters/Services	13	\$2,797,594	\$2,573,503	\$205,910	\$1,327	\$277	\$1,466	\$4,991	\$970	\$3,882	\$4,654	\$495	\$119
38100	Meters	15.2	Meter Investment	28	\$1,436,792	\$1,099,634	\$255,159	\$3,438	\$1,567	\$771	\$15,567	\$2,239	\$29,169	\$26,600	\$1,615	\$1,032
38200	Meter Installations	15.2	Meter Installations	29	\$1,485,023	\$1,136,548	\$263,725	\$3,553	\$1,620	\$797	\$16,089	\$2,314	\$30,148	\$27,493	\$1,670	\$1,067
38300	House Regulators	15.2	Small Meter Investment	26	\$229,187	\$208,084	\$19,787	\$102	\$25	\$124	\$741	\$52	\$45	\$165	\$61	\$0
38400	House Reg. Installations	15.2	Small Meter Investment	26	\$10,892	\$9,889	\$940	\$5	\$1	\$6	\$35	\$2	\$2	\$8	\$3	\$0
38500	Ind. Meas. & Reg. Sta. Equipment	15.2	Industrial Bills	73	\$61,031	\$0	\$0	\$0	\$17,437	\$0	\$0	\$1,661	\$1,246	\$0	\$0	\$40,687
38600	Other Prop. On Cust. Prem	15.2	Peak Month (NCP)	21	\$7,081	\$4,347	\$1,559	\$19	\$31	\$0	\$373	\$0	\$577	\$144	\$31	\$0
Total Distribution Plant					\$12,518,384	\$8,926,406	\$2,160,285	\$23,030	\$46,149	\$3,212	\$208,978	\$20,448	\$664,461	\$176,594	\$28,387	\$260,432
General:																
38900	Land & Land Rights	99	-		\$0											
39000	Structures & Improvements	23.2	PTD Plant	64	\$55,957	\$39,427	\$9,755	\$102	\$207	\$13	\$981	\$92	\$3,207	\$784	\$135	\$1,253
39003	Improvements	23.2	PTD Plant	64	\$39	\$27	\$7	\$0	\$0	\$0	\$1	\$0	\$2	\$1	\$0	\$1
39004	Air Conditioning Equipment	23.2	PTD Plant	64	\$1,891	\$1,333	\$330	\$3	\$7	\$0	\$33	\$3	\$108	\$26	\$5	\$42
39009	Improvement to Leased Premises	23.2	PTD Plant	64	\$1,494	\$1,052	\$260	\$3	\$6	\$0	\$26	\$2	\$86	\$21	\$4	\$33
39100	Office Furniture & Equipment	23.2	Payroll	62	\$16,492	\$12,881	\$2,337	\$23	\$34	\$5	\$208	\$14	\$612	\$144	\$27	\$208
39103	Office Furn. Copiers & Type	23.2	Payroll	62	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39200	Transportation Equipment	23.2	Payroll	62	\$10,723	\$8,375	\$1,519	\$15	\$22	\$3	\$135	\$9	\$398	\$93	\$17	\$135
39300	Stores Equipment	23.2	PTD Plant	64	\$272	\$192	\$47	\$0	\$1	\$0	\$5	\$0	\$16	\$4	\$1	\$6
39400	Tools, Shop & Garage Equipment	23.2	PTD Plant	64	\$125,796	\$88,636	\$21,931	\$229	\$466	\$28	\$2,205	\$206	\$7,211	\$1,763	\$304	\$2,817
39500	Laboratory Equipment	23.2	PTD Plant	64	\$401	\$283	\$70	\$1	\$1	\$0	\$7	\$1	\$23	\$6	\$1	\$9
39600	Power Operated Equipment	23.2	PTD Plant	64	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39603	Ditchers	23.2	PTD Plant	64	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39604	Backhoes	23.2	PTD Plant	64	\$14	\$10	\$2	\$0	\$0	\$0	\$0	\$0	\$1	\$0	\$0	\$0
39605	Welders	23.2	PTD Plant	64	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39700	Communication Equipment	23.2	Payroll	62	\$83,325	\$65,080	\$11,806	\$114	\$174	\$25	\$1,049	\$72	\$3,094	\$725	\$135	\$1,051
39701	Communication Equipment - Mobile Radios	99	-		\$0											
39702	Communication Equipment - Fixed Radios	23.2	Payroll	62	\$16,675	\$13,024	\$2,363	\$23	\$35	\$5	\$210	\$14	\$619	\$145	\$27	\$210
39800	Miscellaneous Equipment	23.2	PTD Plant	64	\$19,278	\$13,583	\$3,361	\$35	\$71	\$4	\$338	\$32	\$1,105	\$270	\$47	\$432
39900	Other Tangible Property - Servers - H/W	23.2	PTD Plant	64	\$0											
39901	Other Tangible Property - Servers - S/W	23.2	PTD Plant	64	\$4,414	\$3,110	\$769	\$8	\$16	\$1	\$77	\$7	\$253	\$62	\$11	\$99
39902	Other Tangible Property - Network - H/W	23.2	PTD Plant	64	\$2,177	\$1,534	\$380	\$4	\$8	\$0	\$38	\$4	\$125	\$31	\$5	\$49
39903	Other Tang. Property - CPU	23.2	PTD Plant	64	\$200,048	\$140,954	\$34,876	\$364	\$741	\$45	\$3,506	\$328	\$11,467	\$2,803	\$484	\$4,480
39904	Other Tangible Property - MF - Hardware	99	-		\$0											
39905	Other Tang. Property - PC Hardware	99	-		\$0											
39906	Other Tang. Property - PC Software	23.2	PTD Plant	64	\$144,013	\$101,472	\$25,107	\$262	\$534	\$32	\$2,524	\$236	\$8,255	\$2,018	\$348	\$3,225
39907	Other Tang. Property - Mainframe S/W	23.2	PTD Plant	64	\$5,635	\$3,970	\$982	\$10	\$21	\$1	\$99	\$9	\$323	\$79	\$14	\$126
39908	Other Tang. Property - Application Software	23.2	General Plant	60	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total General Plant					\$688,645	\$494,942	\$115,903	\$1,197	\$2,347	\$164	\$11,442	\$1,031	\$36,906	\$8,974	\$1,563	\$14,177
Total Direct Depreciation Expense					\$13,396,671	\$9,550,937	\$2,322,840	\$24,705	\$49,384	\$3,378	\$222,779	\$21,611	\$707,336	\$186,739	\$30,189	\$276,773
Shared Services General Office:		23.2	General Plant	60	\$466,587	\$334,390	\$78,937	\$816	\$1,610	\$110	\$7,814	\$708	\$25,257	\$6,146	\$1,069	\$9,727
Shared Services Customer Support:		23.2	General Plant	60	\$573,438	\$410,968	\$97,014	\$1,003	\$1,979	\$136	\$9,603	\$871	\$31,041	\$7,554	\$1,314	\$11,955
Colorado-Kansas General Office:		23.2	General Plant	60	\$41,063	\$29,429	\$6,947	\$72	\$142	\$10	\$688	\$62	\$2,223	\$541	\$94	\$856
Total Depreciation Expense					\$14,477,758	\$10,325,724	\$2,505,738	\$26,597	\$53,115	\$3,634	\$240,884	\$23,252	\$765,857	\$200,980	\$32,666	\$299,312

Atmos Energy Corporation
CURB - Peak & Average CCOSS
(Expenses)

Acct. No.	Atmos Allocation Factor	Atmos Allocation Name	TAI Alloc. No.	Total Company	Residential Sales	Com/PA Sales	Schools Sales	Industrial Sales	SGS Sales	Irrigation Sales	Interruptible Sales	Firm Transport	Schools Transport	Irrigation Transport	Interruptible Transport
<u>Taxes Other Than Income</u>															
Non Revenue Related:															
	25.2	Payroll	62	\$246,055	\$192,176	\$34,863	\$336	\$515	\$74	\$3,098	\$213	\$9,138	\$2,141	\$398	\$3,103
	20.2	Property Related	57	\$8,139,641	\$5,743,464	\$1,427,275	\$14,899	\$30,218	\$1,807	\$140,851	\$13,096	\$457,995	\$111,930	\$19,319	\$178,786
	20.2	Public Service Commission Assessment	57	\$258,139	\$182,147	\$45,264	\$473	\$958	\$57	\$4,467	\$415	\$14,525	\$3,550	\$613	\$5,670
	21.2	Other	58	\$1,206,507	\$854,001	\$210,368	\$2,192	\$4,422	\$271	\$20,711	\$1,915	\$67,210	\$16,412	\$2,837	\$26,170
		Total Non Revenue Related:		\$9,850,342	\$6,971,787	\$1,717,770	\$17,900	\$36,113	\$2,209	\$169,127	\$15,640	\$548,867	\$134,033	\$23,167	\$213,728
Revenue Related:															
	99	State Gross Receipts - Tax		\$0											
	99	Local Gross Receipts - Tax		\$0											
	99	Other		\$0											
		Total Revenue Related:		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Total Taxes, Other Than Income		\$9,850,342	\$6,971,787	\$1,717,770	\$17,900	\$36,113	\$2,209	\$169,127	\$15,640	\$548,867	\$134,033	\$23,167	\$213,728
	22	Allowance for Step Rate	59	(\$4,867,354)	(\$3,080,214)	(\$1,132,373)	(\$11,449)	\$26,516	(\$13,207)	(\$220,463)	(\$1,002)	(\$211,314)	(\$38,795)	(\$24,282)	(\$160,771)
	19.2	Interest Expense	56	\$4,506,689	\$3,119,345	\$831,785	\$8,665	\$16,603	\$852	\$80,901	\$7,240	\$266,151	\$62,676	\$11,123	\$101,348

Atmos Energy Corporation
CURB - Peak & Average CCROSS
(Payroll Expense)

	Atmos Allocation Factor	Atmos Allocation Name	TAI Alloc. No.	Total Company	Residential Sales	Com/PA Sales	Schools Sales	Industrial Sales	SGS Sales	Irrigation Sales	Interruptible Sales	Firm Transport	Schools Transport	Irrigation Transport	Interruptible Transport	
Compressor Station Labor and Expenses				\$0												
Mains and Services Expenses				\$0												
Measuring and Regulating Station Expenses - General				\$0												
Measuring and Regulating Station Expenses - Industrial				\$0												
Measuring and Regulating Station Exp. - City Gate Chk. Sta.				\$0												
Meter and House Regulator Expenses				\$0												
Customer Installations Expenses				\$0												
Other Expenses				\$0												
Rents				\$0												
Maintenance				\$0												
Maintenance Supervision and Engineering				\$0												
Maintenance of Structures and Improvements				\$0												
Maintenance of Mains				\$0												
Maintenance of compressor station equipment				\$0												
Maint. of Measuring and Regulating Station Equip. - General				\$0												
Maint. of Measuring and Regulating Station Equip. - Industrial				\$0												
Maint. of Measuring and Regulating Station Equip. - City Gate				\$0												
Maintenance of Services				\$0												
Maintenance of Meters and House Regulators				\$0												
Maintenance of Other Equipment				\$0												
Total Distribution				\$14,346,594	\$10,079,386	\$2,492,802	\$25,266	\$43,467	\$2,715	\$277,770	\$20,574	\$875,665	\$193,085	\$37,012	\$298,852	
Customer Accounts																
Supervision		Bills	8	\$26,770,858	\$24,682,649	\$1,915,819	\$14,042	\$2,710	\$14,062	\$51,496	\$258	\$32,436	\$46,039	\$5,039	\$6,310	
Meter Reading				\$0												
Customer Rec. & Collections				\$0												
Uncollectible Accounts				\$0												
Misc. Cust. Acct. Expense				\$0												
Total Customer Accounts Expense				\$26,770,858	\$24,682,649	\$1,915,819	\$14,042	\$2,710	\$14,062	\$51,496	\$258	\$32,436	\$46,039	\$5,039	\$6,310	
Customer Service and Information																
Supervision				\$0												
Customer Assistance				\$0												
Information & Instruction				\$0												
Misc. Cust. Acct. Expense				\$0												
Total Customer Service & Info Expense				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Sales																
Supervision		Bills	8	\$107,749	\$99,344	\$7,711	\$57	\$11	\$57	\$207	\$1	\$131	\$185	\$20	\$25	
Demonstration & Selling				\$0												
Advertising				\$0												
Misc. Sales Expense				\$0												
Total Sales Expense				\$107,749	\$99,344	\$7,711	\$57	\$11	\$57	\$207	\$1	\$131	\$185	\$20	\$25	
Administrative & General:																
Operation																
Administrative and General Salaries				59,859,782												
Customer		O&M Expenses less A&G	51	80.17%	\$47,987,082	\$35,349,258	\$7,930,987	\$79,073	\$132,213	\$10,786	\$756,783	\$53,540	\$2,284,503	\$513,991	\$97,527	\$778,421
Commodity		O&M Expenses less A&G	51	0.15%	\$91,909	\$67,704	\$15,190	\$151	\$253	\$21	\$1,449	\$103	\$4,375	\$984	\$187	\$1,491
Demand		O&M Expenses less A&G	51	19.68%	\$11,780,790	\$8,678,214	\$1,947,051	\$19,412	\$32,458	\$2,648	\$185,790	\$13,144	\$560,844	\$126,184	\$23,943	\$191,102
Office Supplies and Expenses				\$0												
Maintenance				\$0												
Maintenance of General Plant				\$0												
Total A&G				\$59,859,781	\$44,095,176	\$9,893,228	\$98,636	\$164,925	\$13,455	\$944,022	\$66,787	\$2,849,723	\$641,159	\$121,657	\$971,014	
Other Utility Plant Related Payroll				\$0												
TOTAL PAYROLL EXPENSE				\$101,194,533	\$79,035,906	\$14,338,033	\$138,293	\$211,669	\$30,288	\$1,274,163	\$87,622	\$3,758,084	\$880,494	\$163,733	\$1,276,248	

Atmos Energy Corporation
CURB - Peak & Average CCOSS
(Revenues)

	Atmos Allocation Factor	Atmos Allocation Name	TAI Alloc. No.	Total Company	Residential Sales	Com/PA Sales	Schools Sales	Industrial Sales	SGS Sales	Irrigation Sales	Interruptible Sales	Firm Transport	Schools Transport	Irrigation Transport	Interruptible Transport
Rate Schedule Revenue:															
Base Revenues	Input			\$65,753,440	\$47,012,711	\$11,627,663	\$118,562	\$113,017	\$42,462	\$1,346,028	\$73,996	\$3,170,378	\$742,538	\$167,962	\$1,338,123
Base Revenue Increase	Input			\$0											
Rider GCR	Input			\$0											
Rider FF and Rider Tax	Input			\$0											
Total Rate Schedule Revenue				\$65,753,440	\$47,012,711	\$11,627,663	\$118,562	\$113,017	\$42,462	\$1,346,028	\$73,996	\$3,170,378	\$742,538	\$167,962	\$1,338,123
Other Revenue:															
Special Contract Revenues	1	Total Throughput	1	\$359,637	\$197,805	\$72,823	\$750	\$1,138	\$4	\$16,948	\$1,535	\$35,853	\$5,238	\$2,269	\$25,274
Ad Valorem Surcharge	1.3	Total Firm Throughput	3	\$0											
GSRs Revenues	Input			\$0											
Misc. Service Revenues	2.5	Meters/Services	13	\$0											
Total Non-Rate Revenue				\$359,637	\$197,805	\$72,823	\$750	\$1,138	\$4	\$16,948	\$1,535	\$35,853	\$5,238	\$2,269	\$25,274
Total Revenue				\$66,113,077	\$47,210,516	\$11,700,486	\$119,312	\$114,155	\$42,466	\$1,362,976	\$75,531	\$3,206,231	\$747,776	\$170,231	\$1,363,397
Proposed Revenue Increase				\$8,740,530	\$8,596,234	\$0	\$0	\$20,786	\$0	\$123,510	\$0	\$0	\$0	\$0	\$0
Rate Revenue Target				\$74,493,970	\$55,608,945	\$11,627,663	\$118,562	\$133,803	\$42,462	\$1,469,538	\$73,996	\$3,170,378	\$742,538	\$167,962	\$1,338,123

Atmos Energy Corporation
CURB - Peak & Average CCOSS
(Allocation Amount)

Atmos Alloc Name	TAI Alloc No.	Total Company	Residential Sales	Com/PA Sales	Schools Sales	Industrial Sales	SGS Sales	Irrigation Sales	Interruptible Sales	Firm Transport	Schools Transport	Irrigation Transport	Interruptible Transport
Total Throughput	1	194,491,887	106,972,846	39,382,881	405,735	615,507	1,928	9,165,730	830,000	19,389,174	2,832,611	1,227,269	13,668,207
Sales Mcf	2	157,374,626	106,972,846	39,382,881	405,735	615,507	1,928	9,165,730	830,000				
Total Firm Throughput	3	179,993,680	106,972,846	39,382,881	405,735	615,507	1,928	9,165,730		19,389,174	2,832,611	1,227,269	
Transport Mcf	4	290,064,887								19,389,174	90,225,238	90,225,238	90,225,238
Winter Volumes Excluding Transport	5	79,830,482	63,173,180	16,391,463	27,538	237,083	1,217	-	-	-	-	-	-
Mcf less Interruptible, SGS, Irrigation	6	169,598,753	106,972,846	39,382,881	405,735	615,507				19,389,174	2,832,611		
Mcf less Interruptible, SGS, Irrigation, Transport	7	147,376,968	106,972,846	39,382,881	405,735	615,507							
Bills	8	1,663,050	1,533,327	119,014	872	168	874	3,199	16	2,015	2,860	313	392
Bills (Sales)	9	1,657,470	1,533,327	119,014	872	168	874	3,199	16				
Bills (Transport)	10	5,580								2,015	2,860	313	392
Bills less Interruptible, SGS, Irrigation	11	1,658,256	1,533,327	119,014	872	168				2,015	2,860		
Bills less Interruptible, SGS, Irrigation, Transport	12	1,653,381	1,533,327	119,014	872	168							
Meters/Services	13	141,259	129,944	10,397	67	14	74	252	49	196	235	25	6
Meters/Services (Sales)	14	140,797	129,944	10,397	67	14	74	252	49				
Meters/Services (Transport)	15	462								196	235	25	6
Winter Peak Month (CP)	16	1,116,959	722,803	259,329	2,657	5,076	5	5,824	-	95,898	23,891	1,475	-
Winter Peak Month (Sales)	17	995,695	722,803	259,329	2,657	5,076	5	5,824					
Winter Peak Month (Transport)	18	121,264								95,898	23,891	1,475	
Winter Peak Month less Interruptible, SGS, Irrigation	19	1,109,654	722,803	259,329	2,657	5,076				95,898	23,891		
Winter Peak Month less Interruptible, SGS, Irrigation, Transport	20	989,866	722,803	259,329	2,657	5,076							
Peak Month (NCP)	21	1,177,455	722,803	259,329	3,182	5,076	23	62,054	-	95,898	23,891	5,200	-
Peak Month (Sales)	22	1,052,467	722,803	259,329	3,182	5,076	23	62,054					
Peak Month (Transport)	23	124,989								95,898	23,891	5,200	
Peak Month less Interruptible, SGS, Irrigation	24	1,110,179	722,803	259,329	3,182	5,076				95,898	23,891		
Peak Month less Interruptible, SGS, Irrigation, Transport	25	990,390	722,803	259,329	3,182	5,076							
Small Meter Investment	26	\$32,052,225	\$29,100,940	\$2,767,305	\$14,231	\$3,478	\$17,285	\$103,633	\$7,334	\$6,362	\$23,106	\$8,551	\$0
Large Meter Investment	27	\$6,058,961	\$67,081	\$4,000,846	\$76,952	\$38,094	\$3,170	\$309,278	\$52,048	\$767,353	\$682,463	\$34,294	\$27,382
Meter Investment	28	\$38,111,185	\$29,168,020	\$6,768,151	\$91,183	\$41,572	\$20,454	\$412,912	\$59,381	\$773,716	\$705,568	\$42,846	\$27,382
Meter Installations	29	\$38,111,185	\$29,168,020	\$6,768,151	\$91,183	\$41,572	\$20,454	\$412,912	\$59,381	\$773,716	\$705,568	\$42,846	\$27,382
Direct to Residential	30	1	1										
Direct to Commercial & Public Authority	31	1		1									
Direct to Schools	32	1			1								
Direct to Industrial	33	1				1							
Direct to SGS	34	1					1						
Direct to Interruptible Sales	35	1						1					
Direct to Irrigation Sales	36	1							1				
Direct to Firm Transport	37	1								1			
Direct to Schools Transport	38	1									1		
Direct to Irrigation Transport	39	1										1	
Direct to Interruptible Transport	40	1											1
P, S, T & D Plant	41	\$432,774,262	\$305,081,652	\$76,048,759	\$794,282	\$1,613,556	\$95,721	\$7,503,554	\$698,701	\$24,407,158	\$5,966,368	\$1,029,337	\$9,535,173
Customer Deposits Factor	43	\$600,364	\$585,186	\$11,327	\$0	\$0	\$0	\$3,500	\$0	\$350	\$0	\$0	\$0
Composite of Accts. 376 & 380	46	\$336,061,148	\$234,825,007	\$58,367,046	\$570,455	\$915,348	\$55,727	\$6,055,011	\$509,922	\$21,675,470	\$4,394,698	\$880,168	\$7,812,294
Distribution Plant	50	\$423,020,237	\$298,349,971	\$73,626,703	\$769,438	\$1,567,204	\$95,664	\$7,391,559	\$693,036	\$24,149,906	\$5,915,916	\$1,018,968	\$9,441,873
O&M Expenses less A&G	51	\$16,574,983	\$12,209,814	\$2,739,403	\$27,312	\$45,667	\$3,726	\$261,397	\$18,493	\$789,079	\$177,535	\$33,686	\$268,871
Rate Base	56	\$302,393,629	\$209,304,472	\$55,811,800	\$581,437	\$1,114,038	\$57,140	\$5,428,393	\$485,763	\$17,858,438	\$4,205,495	\$746,333	\$6,800,320
Gross Plant	57	\$459,130,209	\$323,969,773	\$80,507,854	\$840,402	\$1,704,520	\$101,954	\$7,944,963	\$738,727	\$25,833,988	\$6,313,590	\$1,089,727	\$10,084,710
Other Taxes	58	\$8,385,696	\$5,935,640	\$1,462,138	\$15,235	\$30,733	\$1,881	\$143,950	\$13,309	\$467,133	\$114,071	\$19,717	\$181,889
Taxable Income	59	\$10,704,732	\$6,774,289	\$2,490,418	\$25,180	(\$58,316)	\$29,046	\$484,863	\$2,204	\$464,741	\$85,321	\$53,404	\$353,581
General Plant	60	\$12,374,552	\$8,868,517	\$2,093,519	\$21,653	\$42,704	\$2,927	\$207,234	\$18,790	\$669,859	\$163,011	\$28,352	\$257,987
Distribution O&M	61	\$12,877,013	\$9,046,913	\$2,237,454	\$22,678	\$39,015	\$2,437	\$249,317	\$18,466	\$785,967	\$173,306	\$33,221	\$268,239

Atmos Energy Corporation
CURB - Peak & Average CCOSS
(Allocation Amount)

Atmos Alloc Name	TAI Alloc No.	Total Company	Residential Sales	Com/PA Sales	Schools Sales	Industrial Sales	SGS Sales	Irrigation Sales	Interruptible Sales	Firm Transport	Schools Transport	Irrigation Transport	Interruptible Transport
Payroll	62	\$101,194,533	\$79,035,906	\$14,338,033	\$138,293	\$211,669	\$30,288	\$1,274,163	\$87,622	\$3,758,084	\$880,494	\$163,733	\$1,276,248
PTD Plant	64	\$425,803,769	\$300,021,579	\$74,233,293	\$775,678	\$1,578,017	\$95,684	\$7,462,780	\$698,701	\$24,407,158	\$5,966,368	\$1,029,337	\$9,535,173
Proposed Increase	65	\$0											
Distribution Plant - Cust	66	\$179,114,686	\$151,976,355	\$20,512,719	\$221,115	\$620,106	\$93,814	\$966,933	\$198,391	\$1,632,845	\$1,496,895	\$99,316	\$1,296,198
Distribution Plant - Demand	67	\$238,159,916	\$143,153,460	\$51,933,866	\$535,758	\$927,838	\$1,784	\$6,148,617	\$474,134	\$21,961,411	\$4,329,962	\$885,175	\$7,807,912
Distribution Plant - Comm	68	\$4,806,205	\$2,643,470	\$973,214	\$10,026	\$15,210	\$48	\$226,500	\$20,511	\$479,137	\$69,998	\$30,328	\$337,763
Payroll Less A&G	69	\$41,334,752	\$34,940,729	\$4,444,805	\$39,656	\$46,745	\$16,834	\$330,141	\$20,835	\$908,362	\$239,334	\$42,076	\$305,235
Dist. Plant excl. 374, 380-387	70	\$243,118,806	\$145,890,658	\$52,940,708	\$546,197	\$943,706	\$1,835	\$6,383,163	\$494,645	\$22,452,984	\$4,403,058	\$916,177	\$8,145,675
Mains Gross Plant	71	\$232,891,448	\$139,919,313	\$50,773,510	\$521,521	\$905,123	\$1,680	\$5,870,961	\$474,134	\$21,532,320	\$4,223,064	\$861,909	\$7,807,912
P&A	72	100.00%	60.08%	21.80%	0.22%	0.39%	0.00%	2.52%	0.20%	9.25%	1.81%	0.37%	3.35%
Industrial Bills	73	588				168			16	12			392
	74	-											
	75	-											
P&A Allocator	76	-											
1-CP (Feb)	77	1,116,959	722,803	259,329	2,657	5,076	5	5,824	-	95,898	23,891	1,475	-
Avg. Day Throughput	78	532,854	293,076	107,898	1,112	1,686	5	25,112	2,274	53,121	7,761	3,362	37,447
System Load Factor	79	47.71%											
	80	-											
Avg. Component	81	47.71%	26.24%	9.66%	0.10%	0.15%	0.00%	2.25%	0.20%	4.76%	0.69%	0.30%	3.35%
Peak Component	82	52.29%	33.84%	12.14%	0.12%	0.24%	0.00%	0.27%	0.00%	4.49%	1.12%	0.07%	0.00%
Total P&A Allocator	83	100.00%	60.08%	21.80%	0.22%	0.39%	0.00%	2.52%	0.20%	9.25%	1.81%	0.37%	3.35%

Atmos Energy Corporation
CURB - Peak & Average CCOSS
(Allocation Percent)

Atmos Alloc Name	TAI												
	Alloc No.	Total Company	Residential Sales	Com/PA Sales	Schools Sales	Industrial Sales	SGS Sales	Irrigation Sales	Interruptible Sales	Firm Transport	Schools Transport	Irrigation Transport	Interruptible Transport
Total Throughput	1	100.00%	55.00%	20.25%	0.21%	0.32%	0.00%	4.71%	0.43%	9.97%	1.46%	0.63%	7.03%
Sales Mcf	2	100.00%	67.97%	25.02%	0.26%	0.39%	0.00%	5.82%	0.53%	0.00%	0.00%	0.00%	0.00%
Total Firm Throughput	3	100.00%	59.43%	21.88%	0.23%	0.34%	0.00%	5.09%	0.00%	10.77%	1.57%	0.68%	0.00%
Transport Mcf	4	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.68%	31.11%	31.11%	31.11%
Winter Volumes Excluding Transport	5	100.00%	79.13%	20.53%	0.03%	0.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Mcf less Interruptible, SGS, Irrigation	6	100.00%	63.07%	23.22%	0.24%	0.36%	0.00%	0.00%	0.00%	11.43%	1.67%	0.00%	0.00%
Mcf less Interruptible, SGS, Irrigation, Transport	7	100.00%	72.58%	26.72%	0.28%	0.42%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bills	8	100.00%	92.20%	7.16%	0.05%	0.01%	0.05%	0.19%	0.00%	0.12%	0.17%	0.02%	0.02%
Bills (Sales)	9	100.00%	92.51%	7.18%	0.05%	0.01%	0.05%	0.19%	0.00%	0.00%	0.00%	0.00%	0.00%
Bills (Transport)	10	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	36.11%	51.25%	5.61%	7.03%
Bills less Interruptible, SGS, Irrigation	11	100.00%	92.47%	7.18%	0.05%	0.01%	0.00%	0.00%	0.00%	0.12%	0.17%	0.00%	0.00%
Bills less Interruptible, SGS, Irrigation, Transport	12	100.00%	92.74%	7.20%	0.05%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Meters/Services	13	100.00%	91.99%	7.36%	0.05%	0.01%	0.05%	0.18%	0.03%	0.14%	0.17%	0.02%	0.00%
Meters/Services (Sales)	14	100.00%	92.29%	7.38%	0.05%	0.01%	0.05%	0.18%	0.03%	0.00%	0.00%	0.00%	0.00%
Meters/Services (Transport)	15	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	42.42%	50.87%	5.41%	1.30%
Winter Peak Month (CP)	16	100.00%	64.71%	23.22%	0.24%	0.45%	0.00%	0.52%	0.00%	8.59%	2.14%	0.13%	0.00%
Winter Peak Month (Sales)	17	100.00%	72.59%	26.05%	0.27%	0.51%	0.00%	0.58%	0.00%	0.00%	0.00%	0.00%	0.00%
Winter Peak Month (Transport)	18	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	79.08%	19.70%	1.22%	0.00%
Winter Peak Month less Interruptible, SGS, Irrigation	19	100.00%	65.14%	23.37%	0.24%	0.46%	0.00%	0.00%	0.00%	8.64%	2.15%	0.00%	0.00%
Winter Peak Month less Interruptible, SGS, Irrigation, Transport	20	100.00%	73.02%	26.20%	0.27%	0.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Peak Month (NCP)	21	100.00%	61.39%	22.02%	0.27%	0.43%	0.00%	5.27%	0.00%	8.14%	2.03%	0.44%	0.00%
Peak Month (Sales)	22	100.00%	68.68%	24.64%	0.30%	0.48%	0.00%	5.90%	0.00%	0.00%	0.00%	0.00%	0.00%
Peak Month (Transport)	23	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	76.73%	19.11%	4.16%	0.00%
Peak Month less Interruptible, SGS, Irrigation	24	100.00%	65.11%	23.36%	0.29%	0.46%	0.00%	0.00%	0.00%	8.64%	2.15%	0.00%	0.00%
Peak Month less Interruptible, SGS, Irrigation, Transport	25	100.00%	72.98%	26.18%	0.32%	0.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Small Meter Investment	26	100.00%	90.79%	8.63%	0.04%	0.01%	0.05%	0.32%	0.02%	0.02%	0.07%	0.03%	0.00%
Large Meter Investment	27	100.00%	1.11%	66.03%	1.27%	0.63%	0.05%	5.10%	0.86%	12.66%	11.26%	0.57%	0.45%
Meter Investment	28	100.00%	76.53%	17.76%	0.24%	0.11%	0.05%	1.08%	0.16%	2.03%	1.85%	0.11%	0.07%
Meter Installations	29	100.00%	76.53%	17.76%	0.24%	0.11%	0.05%	1.08%	0.16%	2.03%	1.85%	0.11%	0.07%
Direct to Residential	30	100.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Direct to Commercial & Public Authority	31	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Direct to Schools	32	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Direct to Industrial	33	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Direct to SGS	34	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Direct to Interruptible Sales	35	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Direct to Irrigation Sales	36	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
Direct to Firm Transport	37	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
Direct to Schools Transport	38	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%
Direct to Irrigation Transport	39	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Direct to Interruptible Transport	40	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
P, S, T & D Plant	41	100.00%	70.49%	17.57%	0.18%	0.37%	0.02%	1.73%	0.16%	5.64%	1.38%	0.24%	2.20%
Customer Deposits Factor	43	100.00%	97.47%	1.89%	0.00%	0.00%	0.00%	0.58%	0.00%	0.06%	0.00%	0.00%	0.00%

Atmos Energy Corporation
CURB - Peak & Average CCOSS
(Allocation Percent)

Atmos Alloc Name	TAI		Residential Sales	Com/PA Sales	Schools Sales	Industrial Sales	SGS Sales	Irrigation Sales	Interruptible Sales	Firm Transport	Schools Transport	Irrigation Transport	Interruptible Transport
	Alloc No.	Total Company											
Composite of Accts. 376 & 380	46	100.00%	69.88%	17.37%	0.17%	0.27%	0.02%	1.80%	0.15%	6.45%	1.31%	0.26%	2.32%
Distribution Plant	50	100.00%	70.53%	17.41%	0.18%	0.37%	0.02%	1.75%	0.16%	5.71%	1.40%	0.24%	2.23%
O&M Expenses less A&G	51	100.00%	73.66%	16.53%	0.16%	0.28%	0.02%	1.58%	0.11%	4.76%	1.07%	0.20%	1.62%
Rate Base	56	100.00%	69.22%	18.46%	0.19%	0.37%	0.02%	1.80%	0.16%	5.91%	1.39%	0.25%	2.25%
Gross Plant	57	100.00%	70.56%	17.53%	0.18%	0.37%	0.02%	1.73%	0.16%	5.63%	1.38%	0.24%	2.20%
Other Taxes	58	100.00%	70.78%	17.44%	0.18%	0.37%	0.02%	1.72%	0.16%	5.57%	1.36%	0.24%	2.17%
Taxable Income	59	100.00%	63.28%	23.26%	0.24%	-0.54%	0.27%	4.53%	0.02%	4.34%	0.80%	0.50%	3.30%
General Plant	60	100.00%	71.67%	16.92%	0.17%	0.35%	0.02%	1.67%	0.15%	5.41%	1.32%	0.23%	2.08%
Distribution O&M	61	100.00%	70.26%	17.38%	0.18%	0.30%	0.02%	1.94%	0.14%	6.10%	1.35%	0.26%	2.08%
Payroll	62	100.00%	78.10%	14.17%	0.14%	0.21%	0.03%	1.26%	0.09%	3.71%	0.87%	0.16%	1.26%
PTD Plant	64	100.00%	70.46%	17.43%	0.18%	0.37%	0.02%	1.75%	0.16%	5.73%	1.40%	0.24%	2.24%
Distribution Plant - Cust	66	100.00%	84.85%	11.45%	0.12%	0.35%	0.05%	0.54%	0.11%	0.91%	0.84%	0.06%	0.72%
Distribution Plant - Demand	67	100.00%	60.11%	21.81%	0.22%	0.39%	0.00%	2.58%	0.20%	9.22%	1.82%	0.37%	3.28%
Distribution Plant - Comm	68	100.00%	55.00%	20.25%	0.21%	0.32%	0.00%	4.71%	0.43%	9.97%	1.46%	0.63%	7.03%
Payroll Less A&G	69	100.00%	84.53%	10.75%	0.10%	0.11%	0.04%	0.80%	0.05%	2.20%	0.58%	0.10%	0.74%
Dist. Plant excl. 374, 380-387	70	100.00%	60.01%	21.78%	0.22%	0.39%	0.00%	2.63%	0.20%	9.24%	1.81%	0.38%	3.35%
Mains Gross Plant	71	100.00%	60.08%	21.80%	0.22%	0.39%	0.00%	2.52%	0.20%	9.25%	1.81%	0.37%	3.35%
P&A	72	100.00%	60.08%	21.80%	0.22%	0.39%	0.00%	2.52%	0.20%	9.25%	1.81%	0.37%	3.35%
Industrial Bills	73	100.00%	0.00%	0.00%	0.00%	28.57%	0.00%	0.00%	2.72%	2.04%	0.00%	0.00%	66.67%
	74												
	75												
P&A Allocator	76												
1-CP (Feb)	77	100.00%	64.71%	23.22%	0.24%	0.45%	0.00%	0.52%	0.00%	8.59%	2.14%	0.13%	0.00%
Avg. Day Throughput	78	100.00%	55.00%	20.25%	0.21%	0.32%	0.00%	4.71%	0.43%	9.97%	1.46%	0.63%	7.03%
System Load Factor	79	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	80												
Avg. Component	81	100.00%	55.00%	20.25%	0.21%	0.32%	0.00%	4.71%	0.43%	9.97%	1.46%	0.63%	7.03%
Peak Component	82	100.00%	64.71%	23.22%	0.24%	0.45%	0.00%	0.52%	0.00%	8.59%	2.14%	0.13%	0.00%
Total P&A Allocator	83	100.00%	60.08%	21.80%	0.22%	0.39%	0.00%	2.52%	0.20%	9.25%	1.81%	0.37%	3.35%

ATMOS ENERGY CORPORATION - KANSAS DIVISION
Residential Customer Cost Analysis

	CURB COC	COMPANY COC
Gross Plant		
Services	\$94,905,694	\$94,905,694
Meters	\$29,168,021	\$29,168,021
Meter Installations	\$25,540,401	\$25,540,401
Regulators	\$2,172,064	\$2,172,064
Regulators Installations	\$190,175	\$190,175
Total Gross Plant	\$151,976,355	\$151,976,355
Accum. Depreciation Reserve		
Services	(\$36,682,937)	(\$36,682,937)
Meters	(\$15,253,978)	(\$15,253,978)
Meter Installations	(\$4,646,674)	(\$4,646,674)
Regulators	(\$462,857)	(\$462,857)
Regulators Installations	(\$157,029)	(\$157,029)
Total Depr. Reserve	(\$57,203,475)	(\$57,203,475)
Total Rate Base	\$94,772,880	\$94,772,880
Operation & Maintenance Expenses		
Oper Meter & House Reg.	\$174,326	\$174,326
Oper Customer Install Exp	\$66,636	\$66,636
Services Maintenance	\$3,384	\$3,384
Maint Meter & House Reg	\$273,845	\$273,845
Meter Reading	\$898,275	\$898,275
Records & Collections	\$25,702	\$25,702
Total O&M Expenses	\$1,442,168	\$1,442,168
Depreciation Expense		
Services	\$2,573,503	\$2,573,503
Meters	\$1,099,634	\$1,099,634
Meter Installations	\$1,136,548	\$1,136,548
Regulators	\$208,084	\$208,084
Regulators Installations	\$9,889	\$9,889
Total Depreciation Expense	\$5,027,658	\$5,027,658
Revenue Requirement		
Interest	\$1,731,501	\$1,497,412
Equity Return	\$4,821,570	\$6,340,306
Income Tax	\$1,281,683	\$1,685,398
Total	\$7,834,754	\$9,523,115
Revenue For Return	\$7,834,754	\$9,523,115
O&M Expenses	\$1,442,168	\$1,442,168
Depreciation Expense	\$5,027,658	\$5,027,658
Subtotal Customer Revenue Requirement	\$14,304,580	\$15,992,941
Plus: Uncollectible @ 1.256288 1/	\$366,609	\$409,880
Total Customer Revenue Requirement	\$14,671,189	\$16,402,821
Number of Bills	1,533,327	1,533,327
Monthly Cost	\$9.57	\$10.70

1/ Calculated per CCROSS of \$1,204,880 (Residential uncollectible) divided by \$47,012,711 (Residential rate revenue).

CERTIFICATE OF SERVICE

23-ATMG-359-RTS

I, the undersigned, hereby certify that a true and correct copy of the above and foregoing document was served by electronic service on this 17th day of January, 2023, to the following:

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