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MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. GR-2010-

DIRECT TESTIMONY

OF

THOMAS H. PETERSEN

ON BEHALF OF

ATMOS ENERGY CORPORATION

DECEMBER, 2009

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OF THOMAS H. PETERSEN

WITNESS ON BEHALF OF

ATMOS ENERGY CORPORATION

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**BEFORE THE
MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. _____
PREPARED DIRECT TESTIMONY
OF
THOMAS H. PETERSEN**

**On Behalf of
ATMOS ENERGY CORPORATION**

I. POSITION AND QUALIFICATIONS

1
2 **Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.**

3 A. My name is Thomas H. Petersen. I am Rates Director for Atmos Energy
4 Corporation ("Atmos" or "Corporation"), 5420 LBJ Freeway, Dallas, Texas
5 75240. I am responsible for rate studies of the Corporation's gas utility
6 operations in 12 states including Missouri.

7
8 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND AND**
9 **PROFESSIONAL EXPERIENCE?**

10 A. I received a Bachelor of Science degree in accounting from the University of
11 Nebraska at Omaha and a Master of Arts degree with a major in finance from the
12 University of Iowa. I am a Chartered Financial Analyst®. From July 1980
13 through March 1989, I was employed in Rates and Tariffs Division of the
14 Kentucky Public Service Commission. I was Manager of Rates and Revenue

1 Requirements for Atmos from April 1989 through September 1997. I have been a
2 Director in Atmos' Rate Department since October 1997.

3
4 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

5 A. Yes, I testified in Case No. GR-2006-0387. I have also testified before the
6 Regulatory Agencies in Texas, Colorado, Kansas, Louisiana, Mississippi,
7 Virginia, Georgia and Kentucky in numerous proceedings.

8
9 **II. PURPOSE OF TESTIMONY**

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

12 A. My testimony presents the Company's rate base calculation, the calculation of
13 depreciation expense and the Company's class cost of service study.

14
15 **Q. ARE YOU SPONSORING ANY EXHIBITS OR SCHEDULES?**

16 A. Yes. The depreciation expense calculation is presented in Schedule COS-6 and
17 related workpapers, the rate base calculation is presented in Schedule COS-7 and
18 related workpapers and the income tax calculation is presented in Schedule COS-
19 8. The COS Schedules are included in the filing behind the tab labeled Cost of
20 Service Filing. In addition, the analysis of cash working capital requirements to
21 be included in rate base is presented in Schedules THP-CWC1 through THP-
22 CWC10 and related workpapers. The CWC Schedules are included in the filing
23 behind the tab labeled Cash Working Capital. The class cost of service study is

1 presented in Schedules CCOS-NEMO, CCOS-SEMO and CCOS-WEMO. The
2 CCOS Schedules are included in the filing behind the tab labeled Class Cost of
3 Service Study. The attached Schedule THP-1 shows a comparison of regional
4 operating and maintenance ("O&M") expenses prior to the regional consolidation
5 in Docket GR-2006-0387. All of these schedules were prepared by me or under
6 my supervision.

8 III. DEPRECIATION

9 **Q. PLEASE DESCRIBE THE CALCULATION OF DEPRECIATION**
10 **EXPENSE.**

11 A. Schedule COS-6 summarizes the calculation of depreciation expense. The
12 test year amount of Missouri jurisdictional depreciation and amortization expense
13 is \$3,002,084. Applying the depreciation rates approved in Case No. GR-2006-
14 0387 to the test year-end level of depreciable plant-in-service adjusts the per
15 books expense by \$650,511. The total adjusted Missouri jurisdictional
16 depreciation and amortization expense is \$3,652,595.

17
18 **Q. WHY IS THERE SUCH A LARGE ADJUSTMENT?**

19 A. In the final order in the Company's last rate case in Missouri, Case No. GR-2006-
20 0387, the Commission approved an annual reduction to depreciation expense of
21 \$591,000 from the amount of depreciation expense produced by applying
22 approved depreciation rates to plant balances. The proposed calculation of
23 depreciation expense in this filing does not include that annual reduction to

1 depreciation expense and we are proposing that it be discontinued upon the
2 implementation of new rates in this case. The discontinuation of the annual
3 reduction of \$591,000 accounts for most of the difference between per books
4 depreciation expense and proposed depreciation expense.

5
6 **Q. IS THE COMPANY PROPOSING ANY CHANGES TO DEPRECIATION**
7 **RATES FOR ITS DIRECT MISSOURI PROPERTY?**

8 A. No. On September 16, 2009, the Commission issued an order granting a variance
9 and waiver from the provisions of 4 CSR 240-3.235 requiring Atmos to file a new
10 depreciation study in its next general rate case. Consistent with that waiver the
11 Company is not proposing to change depreciation rates in this case. However, the
12 Company is currently working to improve the data available from its fixed asset
13 records and plans to file a study related to the direct Missouri property in its next
14 general rate case.

15
16 **Q. SINCE CASE NO. GR-2006-0387, HAS THE COMPANY COMPLETED**
17 **ANY DEPRECIATION STUDIES FOR THE ASSETS IN THE**
18 **ADMINISTRATIVE DIVISIONS THAT ALLOCATE COSTS TO**
19 **MISSOURI?**

20 A. Yes. The Company has completed depreciation studies on the assets in the
21 Company's shared services divisions, the general office of the Colorado/Kansas
22 business unit which includes the western ("WEMO") rate region in Missouri and
23 the general office of the Kentucky Mid-States business unit which includes the

1 northeast ("NEMO") and southeast ("SEMO") rate regions in Missouri. The
2 shared services depreciation study has been approved by the Commission in
3 Texas where the vast majority of the shared services assets are located as well as
4 by the regulatory agencies in Louisiana, Virginia, Mississippi, Kentucky and
5 Tennessee. The depreciation rates included in the Colorado-Kansas depreciation
6 study have been incorporated into the settlement of a recent rate case in Colorado
7 where these general office assets are located. The Kentucky Mid-States
8 depreciation study has been approved by the Regulatory Authority in Tennessee
9 where most of these general office assets are located and also by the Commission
10 in Virginia.

11
12 **Q. IS THE COMPANY PROPOSING TO CHANGE DEPRECIATION RATES**
13 **FOR THE ASSETS IN THE SHARED SERVICES AND GENERAL**
14 **OFFICE DIVISIONS?**

15 A. No, even though the new Kentucky Mid-States depreciation rates are currently
16 being used to calculate the depreciation expense allocated to Missouri on the
17 Company's books, the Company is not requesting to include the depreciation rates
18 from these studies in this case. However, for informational purposes, we have
19 included information from these studies in the workpapers filed in this case. The
20 supporting workpapers to Schedule COS-6 shows the depreciation rates from
21 these studies and the calculation of the effect on depreciation expense in Missouri
22 of using the depreciation rates from each of these studies compared to the
23 depreciation rates approved in Case No. GR-2006-0387. If the depreciation rates

1 from the recent shared services study were applied in this case Missouri
2 depreciation expense would increase by \$37,330. If the depreciation rates from
3 the recent Colorado-Kansas study were applied in this case Missouri depreciation
4 expense would increase by \$3,400. If the current depreciation rates for the
5 Kentucky Mid-States general office were applied in this case Missouri
6 depreciation expense would be reduced by \$6,703.

8 IV. RATE BASE

9 **Q. PLEASE EXPLAIN THE RATE BASE CALCULATION.**

10 A. Schedule COS-7 shows the calculation of the adjusted test year rate base for the
11 NEMO, SEMO and WEMO rate regions and total Missouri. The rate base
12 includes net plant, construction work in progress ("CWIP"), accumulated deferred
13 income tax ("ADIT"), customer advances, customer deposits, storage gas,
14 prepayments, prepaid pension, fuel stock, cash working capital requirements and
15 an adjustment in accordance with the Commission order approving the purchase
16 of ANG properties. The resulting total adjusted rate base is \$66,458,687.

17 Net plant is calculated using the test period ending balances for gross plant and
18 accumulated depreciation. ADIT is also calculated using the test period ending
19 balances but is adjusted to remove certain items. The adjustments related to the
20 ANG purchase and prepaid pension are calculated as of the end of the test year.
21 Cash working capital requirements are calculated in an analysis of payment and
22 collection lags. Most of the other components of Rate Base are calculated as the
23 13 month average test period balance without adjustment. All rate base amounts

1 include allocations of investment in shared assets using allocation factors which
2 are described in Mr. Hassen's testimony.

3
4 **Q. PLEASE DESCRIBE THE ADJUSTMENTS TO ADIT.**

5 A. The adjustments are consistent with those used in Case No. GR-2006-0387. They
6 remove items which do not relate directly or indirectly to Missouri and normalize
7 the ADIT impact of the over / under recoveries of gas cost. ADIT for Deferred
8 Expense Projects has been removed as it is not related to Missouri operations.
9 Amounts related to Deferred Intercompany Gain ("DIG") on Fixed Assets and
10 DIG on Fixed Assets – UCG Storage relate to an intercompany gain resulting
11 from the transfer of assets to an affiliate. These amounts have also been removed.
12 The impact on ADIT of the over / under recovery of gas cost is removed to
13 normalize the tax effect of over/under recovery of gas cost to zero. ADIT related
14 to CWIP has also been removed since the Company is not requesting the
15 inclusion of CWIP in rate base.

16
17 **Q. PLEASE DESCRIBE THE RATE BASE ADJUSTMENT MADE IN**
18 **ACCORDANCE WITH THE COMMISSION ORDER APPROVING THE**
19 **PURCHASE OF ANG PROPERTIES.**

20 A. This adjustment reduces rate base by the unamortized amount of the ANG rate
21 base deduction from the Commission's Order approving the Associated Natural
22 Gas ("ANG") Acquisition, Case No. GM-2000-312. Attachment 1 to that Order is
23 the Unanimous Stipulation and Agreement, in which Atmos agreed to remove

1 from rate base an amount equal to \$2.5 million less amortization taken over 120
2 months beginning June 2000. The computation of the unamortized balance at
3 June 2009 of \$226,167 is shown on WP 7-8.

4 5 **V. CASH WORKING CAPITAL**

6 **Q. PLEASE DISCUSS YOUR WORKING CAPITAL ANALYSIS.**

7 A. Rate base is the value of invested capital, including all items used to provide
8 utility service. Cash working capital is the capital investment in addition to other
9 rate base items that is required to bridge the gap from when cash is paid for
10 expenses necessary to provide service and when cash is received from customers
11 for that service. This amount of required investment is included in rate base. An
12 analysis of the timing lags in collecting cash from revenues and paying cash for
13 expenses is a method of measuring the amount of cash working capital necessary
14 to provide utility service. This analysis compares the lag from the provision of
15 service to customers to the collection of cash from customers to the lags from the
16 incurring of expenses to the payment of cash by the Company for those expenses.

17
18 **Q. PLEASE DESCRIBE SCHEDULES THP-CWC1A THROUGH THP-**
19 **CWC1D OF THE WORKING CAPITAL ANALYSIS.**

20 A. These schedules summarize the results of the cash working capital analysis.
21 Schedules THP-CWC1B through THP-CWC1D summarize the results for the
22 NEMO, SEMO and WEMO rate regions and Schedule THP-CWC1A presents
23 Atmos' total Missouri results. These schedules show the calculation of the cash

1 working capital requirement based on amounts included in the proposed revenue
2 requirement and revenue and expense lag days.

3 The items in the working capital analysis include sales tax as well as most
4 expenses in the proposed revenue requirement. The return on rate base and
5 depreciation expense is excluded consistent with Staff's rate base treatment in
6 Case No. GR-2006-0387. The individual expense categories analyzed are listed
7 in column (a). These are gas cost, operating and maintenance expenses, taxes
8 other than income, sales tax, income tax and interest expense. Other taxes are
9 broken out by type of tax. O&M expenses are divided into labor, qualified
10 pension, non-qualified pension, post retirement benefits, medical, uncollectibles
11 and other O&M expenses.

12 The amounts in column (b) are per books with adjustments taken from the cost of
13 service ("COS") schedules and workpapers. The gas cost amount is per books.
14 An estimate of sales taxes based on test year actual sales tax and the requested
15 revenue requirement is included. The amounts in column (c) are calculated by
16 dividing column (b) by 365 days. The revenue and expense lag days in columns
17 (d) and (e) are calculated on Schedules THP-CWC2 through THP-CWC10. Net
18 lag days in column (f) are calculated by subtracting column (e) from column (d).
19 The cash working capital requirement in column (g) is calculated by multiplying
20 the average daily amount in column (c) times the net lead/lag days in column (f).
21 The resulting cash working capital requirement of \$28,283 appears at the bottom
22 of column (g) of Schedule THP-CWC1A.

1 **Q. PLEASE DESCRIBE SCHEDULE THP-CWC2.**

2 A. The average revenue lag is calculated on Schedule THP-CWC2. The revenue lag
3 is the average number of days from the time service is provided by the company
4 until revenue related to that service is available to pay bills. It consists of four
5 subparts:

- 6 • the service lag;
- 7 • the billing lag;
- 8 • the collection lag; and
- 9 • the bank lag.

10

11 **Q. WHAT IS THE SERVICE LAG?**

12 A. The service lag is the average number of days from the time service is provided
13 until the meter is read. Since service is provided daily and meters are read
14 monthly, the service lag is one-half month or 15.21 days.

15

16 **Q. WHAT IS THE BILLING LAG?**

17 A. The billing lag is the time lag from meter reading to bill issuance. The average
18 billing lag for customers on the Company's billing system was estimated by
19 calculating the average billing lag for all bills issued in two months, April and
20 September of 2009. The result was a billing lag of 2.07 days.

21 I compared the results of the billing lag calculations to the Company's billing
22 processes as a check of reasonableness. In the Company's billing system
23 customers are assigned to meter routes and meter routes are assigned to one of 20

1 cycles for billing. The Company's billing system is designed to bill each of the
2 20 cycles on a scheduled day during the month beginning with cycle 1 and
3 proceeding through cycle 20. The system generates a particular meter route's
4 information three business days before bills from this route are scheduled to be
5 printed and mailed. Thus, local offices have three days from the time meter route
6 information is available for downloading to the hand held devices used for meter
7 reading until the information is required for bill preparation. This time frame
8 provides sufficient opportunity to read the meters and to resolve bill exceptions
9 that would prevent the billing system from preparing the bills. The three-day
10 window to provide meter reading information to the billing system provides
11 flexibility in scheduling meter reading and other work minimizing the need for
12 overtime work. Based on various rules and parameters built into the billing
13 system, problems are identified as meter reading and billing exceptions. All
14 meter reading and billing exceptions are forwarded to staff for review and
15 resolution. An employee reviews each exception and determines whether a meter
16 reading is acceptable for billing or whether a reread by a service technician is
17 necessary. Most bill exceptions are resolved so that the accounts in a particular
18 meter route can bill on schedule. Any remaining bill exceptions are billed as soon
19 as they are resolved. The calculated average billing lag appears to be consistent
20 with this process.

21
22 **Q. WHY ISN'T A ONE DAY BILLING LAG REALISTIC FOR ATMOS?**

1 A. With Atmos' systems, operating practices and operating expense levels, achieving
2 a one day billing lag is not practical or efficient. A one calendar day lag is
3 equivalent to a 0.7 workday lag with a five day workweek. While Atmos might
4 be able to construct a billing system that would allow for such a short turnaround,
5 there are trade-offs that affect other expense items. Atmos' billing system has a
6 set billing date for each cycle. This provides for a known amount of billing to be
7 done each night which allows for efficiencies in the bill print process that result in
8 lower operating expenses. Allowing field operations personnel flexibility in
9 scheduling meter reading within a three workday window for each cycle allows
10 for efficiencies in field operations that also result in lower operating expenses.
11 This is especially true for rural service areas like Atmos' service area in Missouri.
12 In these service areas, the personnel who read meters also perform other
13 operations work. A system that would allow an average one day meter read to bill
14 turnaround would require a rigid meter read schedule. Having such a rigid meter
15 read schedule in our Missouri service area would require increased staffing to
16 consistently meet meter reading requirements and while continuing to handle the
17 other required work in a timely manner. Therefore, if the Commission would
18 choose to use a one day billing lag in calculating cash working capital
19 requirements it would be necessary to concurrently adjust upward operating and
20 maintenance expenses to reflect the additional costs inherent in such a change. In
21 my opinion, it is more reasonable to use the Company's actual 2.07 day lag and
22 its actual operating expenses that are consistent with an operating procedure that
23 provides quality service at an overall reasonable price to consumers.

1

2 **Q. WHAT IS THE COLLECTION LAG?**

3 A. The collection lag is the average number of days between issuing a bill and
4 receiving payment. This was calculated by dividing the average daily accounts
5 receivable balance by the average daily revenue. The collection lag was
6 calculated for the test year ended June 2009. It resulted in a lag period of 23.08
7 days.

8

9 **Q. WHAT IS THE BANK LAG?**

10 A. The bank lag is the lag between receiving payment and having funds available to
11 draw on at the bank. Consistent with prior treatment in Missouri, the Company
12 has not included any bank float lags in the calculation of either revenue or
13 expense lags.

14

15 **Q. WHAT IS THE TOTAL AVERAGE REVENUE LAG?**

16 A. The resulting total average revenue lag is the sum of a 15.21 day service lag, a
17 2.07 day billing lag and a 23.08 day collection or 40.36 days, as shown on
18 Schedule THP-CWC2.

19

20 **Q. PLEASE DESCRIBE SCHEDULE THP-CWC3.**

21 A. Schedule THP-CWC3 shows the calculation of the purchased gas cost payment
22 lag of 40.16 days. The gas cost lag days were calculated from actual payment
23 data for the test year ended June 30, 2009.

1

2 **Q. PLEASE DESCRIBE SCHEDULE THP-CWC4.**

3 A. Schedule THP-CWC4 shows the calculation of the average payroll lag days
4 which is the average number of days from the time service is provided until
5 payroll related to that service is paid. The payroll lag days consists of the service
6 lag and the payment lag. The service lag is the average number of days from the
7 time service is provided until the end of the pay period. With the Company's
8 two-week pay period the service lag is seven days. The payment lag is the
9 average number of days between the end of the pay period and payment date.
10 With the Company's practice of paying on Friday for a pay period that ended the
11 previous Friday, the payment lag is seven days. The total average payroll lag is
12 14 days.

13

14 **Q. PLEASE DESCRIBE SCHEDULE THP-CWC5.**

15 A. Schedule THP-CWC5 shows the calculations of the lag days associated with
16 various employee benefits expenses. Pension costs related to non-qualified plans
17 are mostly paid monthly. Therefore, the payment lag is one-half month or 15.21
18 days. Pension costs related to the Company's qualified pension are paid from the
19 pension fund. Pension expense is accrued consistent with FAS 87. The imputed
20 lag for qualified pension expense is set equal to the revenue lag eliminating any
21 effect on cash working capital. Post retirement benefits are paid quarterly so the
22 payment lag is 45.63 days. Medical claims are paid weekly on the Tuesday
23 following the week the claims were submitted to the company for an average lag

1 of 6 days. Medical administrative fees are generally paid monthly on the first
2 Tuesday after the end of the month for an average lag from the mid-point of the
3 month to the payment date of 19.21 days. The weighted average payment lag for
4 medical expense is 6.58 days.

5
6 **Q. PLEASE DESCRIBE THE EXPENSE LAG FOR UNCOLLECTIBLE**
7 **ACCOUNT EXPENSE.**

8 A. When the Company has to write-off an account for non payment, it has not
9 collected cash for the provision of service. However, the Company is allowed to
10 accrue a provision for uncollectible accounts and this accrual is included in O&M
11 expense. The accrual is recorded as service is provided to customers. The accrual
12 is for actual costs that would not otherwise be recovered. The lag for paying these
13 costs is arguably the same as the average lag for all costs of providing service. I
14 have set the expense lag for uncollectible accounts expense equal to the revenue
15 lag.

16
17 **Q. PLEASE DESCRIBE SCHEDULE THP-CWC6.**

18 A. Schedule THP-CWC6 shows the calculation of the average lag days for other
19 O&M expenses. The calculation is based on an analysis of payments on invoices
20 with direct charges to Missouri O&M expense in the twelve months ended June
21 30, 2009. A total of 3,449 invoice charges to O&M are used to determine the lag
22 between the date services were provided to the Company and the date the bill was
23 paid. If information is not available regarding the date service was provided the

1 date of the invoice is used. The resulting payment lags weighted by the amount of
2 the invoice charged directly to Missouri operations are used to calculate a
3 weighted average payment lag of 15.37 days.
4

5 **Q. PLEASE DESCRIBE SCHEDULE THP-CWC7.**

6 A. Schedule THP-CWC7 shows the calculation of the average payment lag days for
7 other taxes. The calculation of the lag is shown separately for each type of tax.
8 FICA taxes are paid by wire on the first banking day after each payday which
9 means the payments are on Monday after payday every other Friday. Therefore,
10 FICA lag days are equal to the payroll lag days for direct deposit employees plus
11 one day for a total lag of 17 days. Unemployment taxes are paid quarterly at the
12 end of the month following each quarter. Therefore, for unemployment taxes, the
13 lag day as calculated from the mid-point of the quarter to the payment date at the
14 end of the following month are 76 days. Ad valorem taxes for the calendar year
15 are due on December 31st. The ad valorem tax lag days as calculated from the
16 mid-point of the calendar year to the due date are 182.5 days. The annual PSC
17 assessment is paid in four quarterly payments in the first month of each quarter.
18 On average the payments are 31.13 days before the midpoint of the quarter.
19 Therefore, the PSC assessment is paid on a 31.13 day lead or a negative lag. The
20 DOT lag of 241.5 days is calculated from the midpoint of the calendar year to the
21 payment on the following February 28th. The Franchise lag of 45.63 days is
22 calculated from the midpoint of the month to the date of payment at the end of the
23 following month.

1

2 **Q. PLEASE DESCRIBE SCHEDULE THP-CWC8.**

3 A. Schedule THP-CWC8 shows the calculation of the payment lag on sales tax.

4 Atmos makes prepayments of sales tax during each month as well as monthly
5 true-up payments for the prior month's taxes. The weighted average of the lags
6 from the mid-point of the month is 21.27 days.

7

8 **Q. PLEASE DESCRIBE SCHEDULE THP-CWC9.**

9 A. Schedule THP-CWC8 shows the calculation of the income tax lag days. Income
10 taxes for a fiscal year are paid in four quarterly payments during the year. Two
11 payments are before the mid-point of the tax year and two are after the midpoint.
12 The average lag from the midpoint of the tax year to the payment dates is 37.5
13 days.

14

15 **Q. PLEASE DESCRIBE SCHEDULE THP-CWC10.**

16 A. This schedule shows the calculation of the payments lags for interest expense on
17 long-term debt. The 91.15 day lag was calculated as the weighted average of the
18 lags from the midpoint of the service periods to the payment due dates.

19

20 **Q. HOW MUCH IS THE COMPANY'S CASH WORKING CAPITAL**
21 **REQUIREMENT?**

1 A. The Company has a cash working capital requirement of \$28,283 based upon my
2 analysis. That amount should be included in the rate base that is used to set rates
3 in this proceeding.
4

5 VI. INCOME TAX

6 **Q. PLEASE DESCRIBE THE CALCULATION OF PROFORMA INCOME**
7 **TAX.**

8 A. Schedule COS-8 shows the calculation of the proforma income tax requirement.
9 The calculation applies a composite income tax rate of 39.06% to the equity
10 portion of the required return on rate base. The composite tax rate is based on a
11 federal tax rate of 35% and a state tax rate of 6.25%.
12

13 V. CLASS COST OF SERVICE

14 **Q. WHAT IS THE PURPOSE OF THE CLASS COST OF SERVICE STUDY**
15 **(“STUDY”)?**

16 A. The objective of the Study is to present a fair and reasonable allocation of the
17 Company’s revenue requirement among the various customer classes for each of
18 the company’s three rate areas, NEMO, SEMO and WEMO. The results of the
19 Study may be useful in developing the proposed rate design.
20

21 **Q. PLEASE DESCRIBE THE STUDY.**

22 A. The Study begins with cost data grouped into functional categories by the uniform
23 system of accounts (“USOA”) for each of the Company’s rate areas in Missouri.

1 The USOA categories include gas production, storage, transmission, distribution
2 and administrative and general. The costs are then reviewed with regard to what
3 available activity data is related to the factors driving each cost. Available
4 activity data includes the number of customers served, the annual or seasonal
5 amount of commodity used and the peak use demand placed on the system. The
6 customers are grouped into customer classes considering the amount and pattern
7 of gas use. Factors are developed to allocate each cost category among the
8 customer classes. Finally, the allocated costs are compared to current and
9 proposed revenues for each customer class with the result of the comparison
10 expressed as a rate of return on rate base for each class.

11
12 **Q. HOW WERE THE CUSTOMER CLASS GROUPINGS DETERMINED?**

13 A. The customer class groupings follow the Company's proposed tariff
14 classifications. The proposed revenue requirement, excluding gas cost, is
15 allocated among the Residential, Small General Service, Medium General
16 Service, Large General Service and Interruptible and Transportation customer
17 classes. There are fewer customers on the Transportation and Interruptible tariffs
18 so they were combined into one Large Customer class.

19
20 **Q. PLEASE EXPLAIN THE ORGANIZATION OF THE STUDY.**

21 A. The study is presented separately for each service area and within each service
22 area for the current rate design and the proposed rate design. The separate
23 sections of the study are labeled Schedules CCOS-NEMO (Current), CCOS-

1 NEMO (Proposed), CCOS-SEMO (Current), CCOS-SEMO (Proposed), CCOS-
2 WEMO (Current) and CCOS-WEMO (Proposed). Within each separate section,
3 page 1 shows a summary of the results of the Study. The allocation of rate base is
4 presented on page 2. Margin is shown on page 3, operating expenses are shown
5 on pages 4 and 5 and allocation factors are shown on page 6. Additional
6 calculations and data are included beginning on page 7.

7
8 **Q. HOW WERE THE COST ALLOCATION FACTORS DETERMINED?**

9 A. The allocation factors are determined based largely on cost causation. The
10 allocation factor applied to a cost category is chosen with the intent to allocate
11 costs proportionately to the customer classes that are responsible for the cost.
12 However, in reality, most categories of cost are incurred in common to serve all
13 customer classes and most costs are relatively fixed with regard to changes in
14 customer use. Gas mains provide an excellent illustration of that point. Mains
15 transporting gas into a town serve all classes of customers in that town meaning
16 that the cost of the mains is a common cost. Much of the cost of the mains is
17 independent of the size of the mains and therefore is a fixed cost relative to the
18 amount of gas used by the customer classes. The additional cost of mains that is
19 due to the size of the mains is also relatively fixed with regard to changes in
20 customer use. The size of the mains is determined at installation and is based on
21 projected peak demands. After installation, declines in customer use will not
22 affect the cost of the mains. Increases in customer use will only affect the cost of
23 the mains if the increase is in peak demand as opposed to annual or seasonal use

1 and if the increase in peak demand is so large and sustained as to require
2 installing additional or larger mains. Modest growth in peak demand is not likely
3 to cause the replacement of mains since the Company considers future growth
4 when it decides the size of main to install. I have used mains as an example, but a
5 similar analysis results in similar conclusions for virtually all of the utility's costs.
6 As a result, other than gas supply expense and the cost of odorant, the utility's
7 cost of service is made up of costs that are fixed with regard to changes in
8 customer use and are largely incurred in common to serve all customer classes.
9 Performing a class cost of service study requires that the utility's common fixed
10 costs be allocated among customer classes. The allocation of common costs
11 among rate classes is inherently imperfect. However some allocations are more
12 reasonable than others. It is reasonable to consider not just cost causation but also
13 the use of utility services in allocating common costs. The gas mains again
14 provide a good example. The cost of the mains is related to peak demands and
15 the geographic distribution of those demands. However, neither peak demand nor
16 the number of customers may reflect the how much a particular class uses mains
17 over the course of a year. Therefore, annual usage may be factored into the
18 allocation of the cost of mains. While allocating part of the fixed cost of mains on
19 the basis of annual use may provide for a more reasonable allocation of the cost of
20 mains between classes, it doesn't make that cost any less fixed relative to the level
21 of annual use nor does it indicate that the fixed cost of mains should be recovered
22 through a variable charge as opposed to a fixed charge.

1 This Study allocates much of the Company's fixed, common costs using a
2 combination of peak and average use. This method reflects the fact that the
3 facilities serving the customers and related expenses are incurred to meet peak
4 load requirements and also to provide service throughout the year. For example,
5 mains are designed to meet peak load requirements for all customers on a system
6 and also are used to provide service all year. Therefore, to continue our Mains
7 example, the Study allocates the cost of mains to each customer class based on
8 75% peak month consumption, and 25% annual throughput for that class. In this
9 way the cost of facilities designed to meet peak demands during the coldest month
10 of the year are allocated among customer classes primarily on the basis of their
11 use of the facilities on the peak month, with a portion of the costs allocated based
12 on use of the facilities throughout the year.

13
14 **Q. HOW ARE THE COMPONENTS OF RATE BASE ALLOCATED?**

15 A. Natural gas production plant is used to meet peak sales requirements. It is
16 allocated to the classes on peak sales. For most customer classes peak month use
17 was determined by actual peak month use during the test year. For interruptible
18 customers who do not place peak demands on the system in the winter peak day,
19 peak month use was imputed by dividing annual use by 12 months.

20 Transmission plant is designed to meet peak demands and is used to meet annual
21 requirements for transportation customers as well as sales customers. It is
22 allocated 75% on peak usage and 25% on annual system throughput. This
23 allocation largely follows cost causation by allocating most of the cost on peak

1 demand but still allocates a portion of the cost on year round use of the facilities
2 so off peak customers bear some of the cost of the facilities they use.

3 Within distribution plant, as already mentioned, investment in mains is allocated
4 on a combination of peak and average use. Investment in assets located at
5 individual customer locations is allocated based on an analysis of the number and
6 size of assets serving each of the customer classes. Using data from this analysis,
7 the investment in services, meter installation, house regulators and installation and
8 large measuring and regulator station equipment is allocated among the customer
9 classes.

10 General and intangible plant is allocated among customer classes using the
11 percentage of plant for the other functional categories allocated to each class. The
12 percentage of gross plant allocated to each rate class is then used to allocate
13 accumulated depreciation, deferred taxes and the ANG acquisition rate base
14 credit. Customer deposits are related primarily to residential and commercial
15 services and are allocated between those classes based on the number of
16 customers served with each class. Customer advances generally relate to
17 additions to mains and services and are allocated among customer classes based
18 on investment in mains and services. Prepayments are allocated based on O&M
19 expense. The cash working capital requirement is allocated on a blend of sales
20 volume, O&M, other taxes and gross plant.

21 Storage gas is used to meet peak sales requirements and to provide economical
22 sales service throughout the winter season. Storage gas balances are drawn down
23 to serve sales customers during the months of November through March. With

1 cycle billing, most of the sales volumes supported by these withdrawals are on
2 billings in December through April. Sales usage during December through April
3 is defined as winter season sales volume for allocation of storage investment.
4 Storage gas is allocated 75% on winter peak usage and 25% on winter seasonal
5 usage. Fuel stock for the Hannibal propane air peaking plant is used to meet peak
6 demands and is allocated based on peak sales.

7
8 **Q. HOW ARE REVENUES ALLOCATED AMONG CUSTOMER CLASSES?**

9 A. Since revenues are received directly from customers, there is little need for
10 allocation of revenues among customer classes. Most revenues are identifiable by
11 class of customer in Cost of Service schedules. Miscellaneous revenue, which
12 comprises approximately 2% of total margin revenue, is not easily retrievable by
13 customer class from our customer information system. Miscellaneous revenue is
14 mostly related to customer service charges for such things as initiating service. It
15 is allocated among classes based on the number of meters served within each
16 class.

17
18 **Q. HOW ARE OPERATION AND MAINTENANCE EXPENSES**
19 **ALLOCATED AMONG CUSTOMER CLASSES?**

20 A. The allocation methods are similar to those used for rate base. Natural gas
21 production expenses are allocated on peak sales. Transmission expenses are
22 allocated 75% on peak demand and 25% on annual system throughput. Mains
23 and services expense is allocated using investment in mains and services. Meter

1 and house regulator expense also follows investment in related assets. Operation
2 supervision and engineering expense follows other distribution operation
3 expenses. Distribution maintenance expenses are allocated based on the
4 percentage of distribution plant assigned to each customer class. Meter reading
5 expenses are allocated based on the number of meters in each customer class.
6 Uncollectible accounts expense is allocated based on revenues. Other customer
7 accounts, customer service expense and sales expenses are allocated based on the
8 number of bills issued to each class. Administrative and general expenses are
9 allocated in proportion to operating and maintenance expenses for the other
10 functional categories.

11
12 **Q. HOW ARE OTHER EXPENSES ALLOCATED AMONG CUSTOMER**
13 **CLASSES?**

14 A. Depreciation expense is allocated in proportion to gross plant. Other taxes are
15 approximately three-fourths property taxes with the majority of the remainder
16 payroll taxes, so they are allocated three-fourths on gross plant and one-fourth on
17 operating and maintenance expenses. Income taxes are allocated in proportion to
18 taxable income.

19
20 **Q. WHAT ARE THE RESULTS OF THE CLASS COST OF SERVICE**
21 **STUDY?**

22 A. For the NEMO service area, the overall rate of return on rate base at current rates
23 in the current rate design is approximately 2.6%, with the Residential class having

1 a rate of return of 2.2%, the Small General Service class having a rate of return of
2 -1.1%, the Medium General Service class having a rate of return of 6.7%, the
3 Large General Service class having a rate of return of 4.8% and the Interruptible
4 and Transportation class having a rate of return of 1.1%. At the Company's
5 proposed rates and proposed rate design, the overall rate of return on rate base for
6 NEMO would be approximately 8.9%, with the Residential class having a rate of
7 return of 9.3%, the Small General Service class having a rate of return of 9.0%,
8 Medium General Service class having a rate of return of 8.5%, the Large General
9 Service class having a rate of return of 9.5% and the Interruptible and
10 Transportation class having a rate of return of 6.3%.

11 For the SEMO service area, the overall rate of return on rate base at current rates
12 in the current rate design is approximately 3.5%, with the Residential class having
13 a rate of return of 1.3%, the Small General Service class having a rate of return of
14 -1.6%, the Medium General Service class having a rate of return of 13.5%, the
15 Large General Service class having a rate of return of 14.9% and the Interruptible
16 and Transportation class having a rate of return of 5.1%. At the Company's
17 proposed rates and proposed rate design, the overall rate of return on rate base for
18 SEMO would be approximately 8.9%, with the Residential class having a rate of
19 return of 8.9%, the Small General Service class having a rate of return of 8.8%,
20 Medium General Service class having a rate of return of 13.4%, the Large
21 General Service class having a rate of return of 14.2% and the Interruptible and
22 Transportation class having a rate of return of 4.3%.

1 For the WEMO service area, the overall rate of return on rate base at current rates
2 in the current rate design is approximately 2.0%, with the Residential class having
3 a rate of return of 0.4%, the Small General Service class having a rate of return of
4 -2.0%, the Medium General Service class having a rate of return of 9.9% and the
5 Large General Service class having a rate of return of 4.6%. At the Company's
6 proposed rates and proposed rate design, the overall rate of return on rate base for
7 WEMO would be approximately 8.9%, with the Residential class having a rate of
8 return of 8.8%, the Small General Service class having a rate of return of 10.2%,
9 Medium General Service class having a rate of return of 10.1% and the Large
10 General Service class having a rate of return of 7.1%.

11
12 **Q. HAVE YOU REVIEWED ANY COST DATA RELATED TO THE ISSUE**
13 **OF REGIONAL CONSOLIDATION?**

14 A. Yes. I reviewed expenses by region from the Company's last rate case, Case No.
15 GR-2006-0387. Expenses in that case were separately recorded in most of the
16 regions that were consolidated. What is now WEMO was previously the Butler
17 and the Rich Hill - Hume regions and expenses were recorded separately in each
18 of those regions. What was previously the United Cities Gas ("UCG") region
19 included sub-regions of Palmyra and Neeleyville. Expenses were not recorded
20 separately for those sub-regions so I allocated the total UCG expenses among the
21 sub-regions on a per customer basis. In the consolidation, Neeleyville was
22 combined with the existing SEMO region and Palmyra was consolidated with the
23 rest of UCG and the Kirksville region into NEMO.


1 Some expenses were booked on a consolidated basis for all of Missouri into the
2 UCG region. I reallocated the portion of those expenses that I could readily
3 identify across the regions in Missouri. I then compared the regions using O&M
4 expense per customer. The results are shown on the attached schedule. The
5 results show that the Butler and Rich Hill – Hume regions that were combined
6 into WEMO had very similar O&M expenses per customer of \$189 and \$182
7 respectively. Neeleyville had a higher O&M per customer of \$158 than the
8 exiting SEMO region at \$137 but since the Neeleyville region was so small
9 compared to SEMO the new combined SEMO still had an O&M per customer of
10 \$137. The Kirksville revision had a lower O&M per customer of \$139 than the
11 UCG and Palmyra regions at \$158. The combined NEMO region had O&M per
12 customer of \$152. The difference between Kirksville and UCG/Palmyra could be
13 partially explained by state wide expenses charged to UCG that I failed to find
14 and adjust.

15
16 **Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

17 **A.** Yes.

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

STATE OF TEXAS)
) ss
COUNTY OF DALLAS)



Atmos Energy Corporation

Missouri Jurisdiction

Comparison of O&M expenses before regional consolidation in Missouri

Twelve Months Ended June 30, 2009

Data from Docket GR-2006-0387 updated filing

Schedule THP-1

	NEMO	WEMO	SEMO	NEMO [2]	SEMO [2]	NEMO	WEMO	Total	NEMO	SEMO	WEMO	Total	Old Div 97
	Kirkville	Butler	Semo	Palmyra	Neeleyville	UCG	Rich Hill Hume						
O&M adjusted [1]	831,268	705,103	4,818,959	223,695	74,635	1,984,870	86,131	8,724,661	3,039,833	4,893,594	791,234	8,724,661	2,283,200
Bills [3]	71,591	44,839	422,314	16,985	5,667	150,710	5,664	717,770					
Customers	5,966	3,737	35,193	1,415	472	12,559	472	59,814	19,941	35,665	4,209	59,814	14,447
O&M/Cust.	139	189	137	158	158	158	182	146	152	137	188	146	

[1] O&M expense per updated filing in Docket GR-200600387 adjusted to reallocated the following items:

Office Supplies & Expense booked to division 097 for all of Missouri - reallocated based on number of customers
 Administrative expense transferred booked to division 097 - reallocated within Missouri on composite factor
 Outside Services booked to division 097 for all of Missouri - reallocated based on number of customers
 Labor booked to division 097 that also served Kirksville - reallocated based on number of customers
 Also, recalculated the composite allocation factor within Missouri removing the effect of non-recurring MGP expense

[2] Unable to identify O&M expenses for Palmyra and Neeleyville expenses within division 097 (UCG) so allocated among
 Palmyra, Neeleyville and UCG based on number of customers

[3] Per stipulation in Docket GR-2006-0387