

WATSON, D. A.

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

|   |                         |
|---|-------------------------|
| <b>IN THE MATTER OF THE APPLICATION )</b> | <b>Docket No.</b>       |
| <b>OF ATMOS ENERGY CORPORATION )</b>      |                         |
| <b>FOR REVIEW AND ADJUSTMENT OF ITS )</b> |                         |
| <b>NATURAL GAS RATES )</b>                | <b>16-ATMG-____-RTS</b> |

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**DIRECT TESTIMONY OF  
DANE A. WATSON  
FOR ATMOS ENERGY CORPORATION**

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**I. INTRODUCTION**

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

**A.** My name is Dane A. Watson. My business address is 1410 Avenue K, Suite 1105-B, Plano, Texas 75074.

**Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

**A.** I am the Managing Partner for Alliance Consulting Group. Alliance Consulting Group provides depreciation consulting and expert services to the utility industry. Alliance Consulting Group has specialized education and expertise in this area and has been serving clients for over 10 years.

**Q. WHAT ARE YOUR JOB RESPONSIBILITIES?**

**A.** I am primarily responsible for overseeing and conducting depreciation studies for utility companies across the U.S.

1 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**  
2 **PROFESSIONAL EXPERIENCE.**

3 **A.** I received a Bachelor of Science degree in Electrical Engineering from the University of  
4 Arkansas at Fayetteville in 1985. I also received a Masters degree in Business  
5 Administration from Amber University in 1991. I am a Certified Depreciation  
6 Professional, and a registered Professional Engineer in the State of Texas.

7 **Q. ARE YOU A MEMBER OF ANY PROFESSIONAL ORGANIZATIONS?**

8 **A.** Yes. I am a member of the Society of Depreciation Professionals and currently serve as  
9 President and a faculty member in their training program. I am a member of the  
10 American Gas Association and Edison Electrical Institute Property Accounting  
11 Committee, where I have served in numerous leadership capacities and served as general  
12 editor for industry publications. I am also a senior member of the Institute of Electronics  
13 and Electrical Engineers.

14 **Q. HAVE YOU TESTIFIED BEFORE THIS COMMISSION OR OTHER STATE**  
15 **REGULATORY COMMISSIONS?**

16 **A.** Yes. A more detailed description of my testimony experience, qualifications, duties, and  
17 responsibilities, is included as Exhibit DAW-1. Also, I filed testimony before this  
18 Commission in Atmos Energy's Kansas rate case, Docket No. 12-ATMG-564-RTS.

19

20 **II. PURPOSE OF TESTIMONY**

21 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

22 **A.** The purpose of my testimony is to discuss the depreciation studies performed by  
23 Alliance Consulting Group for Atmos Energy Corporation (“Atmos Energy” or “the

1 Company”) Colorado-Kansas (“COKS”) General Office, and Shared Services Unit  
2 (“Shared Services”) depreciable assets and to support the depreciation rate changes  
3 recommended for Atmos Energy’s gas utility plant accounts based on the results of those  
4 depreciation studies.

5 **Q. ARE YOU SPONSORING ANY EXHIBITS TO YOUR TESTIMONY?**

6 **A.** Yes. I am sponsoring the following exhibits:

- 7 • Exhibit DAW-1 is a detailed description of my qualifications, duties,  
8 responsibilities, and a listing of my testimony experience.
- 9 • Exhibit DAW-2 is the Colorado-Kansas General Office Depreciation Study as  
10 of September 30, 2014.
- 11 • Exhibit DAW-3 is the Shared Services Unit Depreciation Study as of  
12 September 30, 2014.

13  
14 **III. SUMMARY OF DEPRECIATION STUDY RESULTS**

15 **Q. WHAT RECOMMENDATIONS ARE YOU MAKING IN YOUR TESTIMONY?**

16 **A.** I recommend that the Commission approve the depreciation rates developed for Atmos  
17 Energy’s utility plant accounts as set forth in the depreciation rate studies, which are  
18 included as Exhibits DAW-2 and DAW-3. Based on the depreciation study year ending  
19 September 30, 2014, the recommended depreciation rates for the COKS General Office  
20 will result in a total annual depreciation expense of approximately \$255 thousand per  
21 year. The annual depreciation expense for COKS General Office is allocated between  
22 Colorado and Kansas customers. The recommended depreciation rates for Shared  
23 Services will result in a total annual depreciation expense of approximately \$21.7

1 million. Similar to COKS General Office, the annual depreciation expense for Shared  
2 Services is allocated to Atmos Energy divisions and Kansas will be allocated its share.  
3 The direct impact to Kansas customers for COKS General Office and Shared Services  
4 can be found on WP 10-1 of the revenue requirement model filed in this case.  
5 Depreciation Expense is addressed by Company Witness Barbara Myers. The calculated  
6 proposed depreciation rates at September 30, 2014 are shown in detail in Appendices A  
7 and B of Exhibits DAW-2 and DAW-3.

8 **Q. HOW DOES THE ANNUAL DEPRECIATION EXPENSE REFLECTED IN THE**  
9 **DEPRECIATION RATE STUDIES RELATE TO WHAT ATMOS ENERGY IS**  
10 **PROPOSING WITH RESPECT TO DEPRECIATION AND AMORTIZATION**  
11 **EXPENSE IN THIS RATE CASE?**

12 **A.** Ms. Myers explains and supports Atmos Energy's proposals for depreciation expense  
13 based on the Company's test period ending March 31, 2015 in her direct testimony, and  
14 specifically requests the Commission's approval of the depreciation rates for Atmos  
15 Energy's utility plant accounts as recommended in the Depreciation Rate Studies. The  
16 Company's proposed annual depreciation expense for the test period is calculated using  
17 these same recommended depreciation rates, but based on test year ending March 31,  
18 2015 plant balances. The proposed annual depreciation expense is provided in Ms.  
19 Myers' testimony and exhibit.

20 **Q. WHAT IS THE GOAL IN PREPARING THE ESTIMATE OF TEST PERIOD**  
21 **PLANT IN SERVICE AND DEPRECIATION RESERVE?**

22 **A.** The goal in preparing the test period amount is to define the level of plant in service,  
23 book depreciation reserve, and corresponding annual depreciation rates that will exist per

1 the Company's books and records at the conclusion of the test period. The estimates are  
2 performed to identify the level of actual activity and resulting balances anticipated to  
3 occur from my study date of September 30, 2014 through to the test period ending March  
4 31, 2015.

5 **Q. WHAT IS THE PURPOSE OF INCLUDING AN ANNUALIZED**  
6 **DEPRECIATION EXPENSE LEVEL IN EXHIBITS DAW-2 AND DAW-3 AND**  
7 **TESTIMONY IF THE DEPRECIATION AMOUNT IS NOT USED AS A BASIS**  
8 **FOR REVENUE REQUIREMENTS?**

9 **A.** The purpose for including an annualized depreciation expense amount is to illustrate the  
10 annual dollar impact of the proposed changes to the underlying depreciation parameters  
11 (*i.e.*, average service lives and net salvage percentage).

12  
13 **IV. DEPRECIATION STUDIES**

14 **Q. ARE THERE VARIOUS DEPRECIATION RELATED TERMS AND CONCEPTS**  
15 **THAT ARE REFERENCED THROUGHOUT YOUR DIRECT TESTIMONY?**

16 **A.** Yes. The following is a preliminary and limited glossary of key terms that may be  
17 useful. A more detailed discussion of these and other terms and concepts can be found in  
18 Exhibits DAW-2 and DAW-3.

19  
20 **ASL - ASL** refers to Average Service Life. The average service life is the average  
21 period of years, from original installation date in which property group investments  
22 (related to property in service) continues to provide service until the property is retired  
23 from service.

1           **ARL** - ARL refers to Average Remaining Life. The average remaining life of the  
2           property group is equal to the average period of years from the age of the property group  
3           at the depreciation study date until the maximum life of the property group investment.  
4           Said another way, it is the average period of years that current surviving investments in  
5           the property group will continue to provide service to Atmos Energy's customers.

6  
7           **Iowa Curves** - A family of statistical curves (developed during the mid-1930s) that have  
8           been used extensively to represent the survival characteristics of utility property. The  
9           Iowa family of curves is fitted to raw survivor curves generated from the Company's  
10          data being studied to both smooth and extrapolate Company data to zero percent  
11          surviving as well as to identify historical life indications.

12  
13          **Life Indication** - The indication of average service life, developed from the database of  
14          historical retirements, from a property group that is being studied.

15  
16          **Gross Salvage** - Gross receipts for the disposal of property retired from service. In some  
17          instances the accounting entry from return of assets to stores, or the receipt of insurance  
18          reimbursements for damage of Company property.

19  
20          **Cost of Removal** - The cost expended by the Company to remove or retire property from  
21          service. The Company may either physically remove property from its service locations  
22          or retire/abandon the property in place. In the case of abandonment, there are costs that  
23          are routinely incurred to disconnect the property from the Company's operating system.

1           **Net Salvage** - Net Salvage is equal to Gross Salvage less Cost of Removal/Retirement.  
2           Positive Net Salvage occurs if Gross Salvage exceeds Cost of Removal/Retirement.  
3           Conversely, Negative Net Salvage occurs if Cost of Removal/Retirement exceeds Gross  
4           Salvage. Negative Net Salvage is more prevalent in the retirement of utility property  
5           because little residual value exists in the property being retired.

6  
7           **Data (Service Life and Salvage)** - A data file containing Atmos Energy's historical  
8           accounting activity related to the surviving investments as well as additions, retirements,  
9           transfers, and adjustments that have been recorded on the Company's books and records  
10          in prior years. Similar information is also recorded relative to accounting entries within  
11          Atmos Energy's book depreciation reserve. The data is used together with standard  
12          depreciation study methods and procedures along with other current and anticipated  
13          items to develop estimates of average service lives and net salvage factors. The  
14          depreciation data is also used to calculate average remaining lives of the Company's  
15          current surviving investments.

16  
17          **Actuarial Life Analysis** - Actuarial analysis (retirement rate method) is one of the  
18          commonly accepted life analysis approaches used in evaluating the database of historical  
19          asset retirement experience where vintage data is available and sufficient retirement  
20          activity is present.

21  
22       **Q.       WHAT DO THE DEPRECIATION STUDIES ANALYZE?**

23       **A.**     The studies in Exhibits DAW-2 and DAW-3 analyze the Company's historical



1 accounting database for life characteristics and net salvage percentages for Atmos  
2 Energy's assets at September 30, 2014.

3 **Q. WHAT PROPERTY IS INCLUDED IN THE DEPRECIATION STUDIES?**

4 **A.** There is one class or functional group of depreciable property that is analyzed in the  
5 studies: General Plant property. General Plant property is not location specific, but is  
6 plant used to support Atmos Energy's overall operations (e.g., office buildings,  
7 computers, and software). In the case of the COKS and Shared Services the costs are  
8 allocated a specific share among the Kansas customers.

9 **Q. WHEN WERE THE EXISTING DEPRECIATION RATES APPROVED?**

10 **A.** The existing depreciation rates for COKS General Office and Shared Services were  
11 approved in Docket No. 12-ATMG-564-RTS.

12 **Q. WHAT IS THE IMPORTANCE OF CONDUCTING A NEW STUDY AND**  
13 **PROPOSING NEW DEPRECIATION RATES AT THIS TIME?**

14 **A.** It is important that periodic review and approval be made to depreciation rates to reflect  
15 the changes in investment and the underlying life and net salvage parameters required to  
16 achieve intergenerational equity for Atmos Energy's customers based on current and  
17 future operations of its depreciable assets. It is important for the Commission to review  
18 and set depreciation rates at a new level now to ensure that intergenerational equity for  
19 Atmos Energy's customers is maintained.

20 **Q. CAN YOU PLEASE EXPLAIN THE TERM INTERGENERATIONAL EQUITY?**

21 **A.** Yes. The term intergenerational equity is a regulatory term and concept used to describe  
22 the fact that customer rates should be set to reflect an appropriate share of costs for the  
23 benefits received. Without periodic depreciation studies, more costs may be borne by

1 customers who don't receive an equitable share of the benefit.

2 **Q. CAN YOU PROVIDE A BRIEF DESCRIPTION OF THE DEPRECIATION**  
3 **STUDY PROCESS?**

4 **A.** Yes. A depreciation study process encompasses four distinct phases. The first phase  
5 involves data collection and field interviews. The second phase is where the initial data  
6 analysis occurs. The third phase is where the information and analysis is evaluated.  
7 After the first three stages are complete, the fourth phase involves the calculation of  
8 depreciation rates and documenting the corresponding recommendations. I provide a  
9 more detailed discussion later in my testimony and additional information can be found  
10 with the results of the study in Exhibits DAW-2 and DAW-3.

11 **Q. ARE THERE STANDARD DEPRECIATION PROCESSES AND**  
12 **METHODOLOGIES THAT ARE FOLLOWED?**

13 **A.** Yes. The depreciation study process and phases that I described above is a standard  
14 depreciation study approach. Inside each phase of the depreciation study process,  
15 standard life analysis, net salvage analysis, and rate calculation methodologies were  
16 utilized.

17 **Q. DID YOU USE STANDARD PROCESSES AND METHODOLOGIES TO**  
18 **DETERMINE THE PROPOSED DEPRECIATION RATES?**

19 **A.** Yes. The depreciation system (straight-line method, equal life group procedure, and  
20 remaining life technique) was used in calculating the proposed depreciation rates, which  
21 is the same depreciation system that was utilized to calculate the existing depreciation  
22 rates.

23 **Q. WHY IS DEPRECIATION IMPORTANT TO DETERMINING ATMOS**

1           **ENERGY'S REVENUE REQUIREMENT?**

2    **A.**    Depreciation is important because, as the definition below describes, depreciation  
3           expense enables Atmos Energy to recover in a timely manner the capital costs related to  
4           its plant-in-service benefiting the Company's customers. Appropriate depreciation rates  
5           will allow recovery of investments in depreciable assets over a life that provides for full  
6           recovery of the investments, less net salvage.

7    **Q.    WHAT DEFINITION OF DEPRECIATION HAVE YOU USED FOR THE**  
8           **PURPOSES OF CONDUCTING THE DEPRECIATION STUDIES AND**  
9           **PREPARING YOUR TESTIMONY?**

10   **A.**    The term "depreciation," as used herein, is considered in the accounting sense -- that is,  
11           a system of accounting that distributes the cost of assets, less net salvage (if any), over  
12           the estimated useful life of the assets in a systematic and rational manner. Depreciation  
13           is a process of allocation, not valuation. Depreciation expense allocates the cost of the  
14           asset, including any estimated net salvage necessary to remove the asset, as an ongoing  
15           cost of operations over the economic life of the asset. Depreciation expense is  
16           systematically allocated to accounting periods over the life of the properties. The  
17           amount allocated to any one accounting period does not necessarily represent the loss or  
18           decrease in value that will occur during that particular period. Thus, depreciation is  
19           considered an expense or cost of operations, rather than a loss or decrease in value.  
20           Atmos Energy accrues depreciation based on the original cost of all property included in  
21           each depreciable plant account. On retirement, the full cost of depreciable property, less  
22           the net salvage amount, if any, is charged to the depreciation reserve.

1 **Q. PLEASE DESCRIBE YOUR DEPRECIATION STUDY APPROACH IN MORE**  
2 **DETAIL.**

3 **A.** With the assistance of my staff, I conducted the depreciation studies in four phases as  
4 broadly described previously and at pages 11-13 of Exhibits DAW-2 and DAW-3. The  
5 four phases are: Data Collection, Analysis, Evaluation, and Calculation. During the  
6 initial phase of the study, I collected historical data to be used in the analysis. After the  
7 data was assembled, I performed analyses to determine the life characteristics and net  
8 salvage percentage for the different property groups being studied. As part of this  
9 process, I conferred with field personnel, engineers, and managers responsible for the  
10 installation, operation, and removal of the assets to gain their input into the operation,  
11 maintenance, and salvage of the assets. The information obtained from field personnel,  
12 engineers, and managerial personnel, combined with the study results, were then  
13 evaluated to determine how the results of the historical asset activity analysis, in  
14 conjunction with the Company's expected future plans, should be applied. Using all of  
15 these resources, I then calculated the depreciation rate for each group of assets.

16 **Q. WHAT DEPRECIATION SYSTEM DID YOU USE?**

17 **A.** The straight-line (method), Equal Life Group ("ELG") (procedure), remaining-life  
18 (technique) depreciation system was used in these studies.

19 **Q. HOW ARE THE DEPRECIATION RATES DETERMINED USING THE ELG**  
20 **PROCEDURE?**

21 **A.** The annual depreciation expense for each group was computed by dividing the original  
22 cost of the asset, less allocated depreciation reserve, less estimated net salvage, by its  
23 respective equal life group remaining life. The resulting annual accrual amounts of all

1           depreciable property within an account were accumulated, and the total was divided by  
2           the original cost of all depreciable property within the account to determine the  
3           depreciation rate. The calculated remaining lives and annual depreciation accrual rates  
4           were based on attained ages of plant in service and the estimated service life and net  
5           salvage characteristics of each depreciable group. The formulas for the depreciation rate  
6           calculations by type of plant are shown in Exhibits DAW-2 and DAW-3, pages 14-15.  
7           The individual account computations of the annual depreciation rates are shown in  
8           Appendices B of Exhibits DAW-2 and DAW-3.

9   **Q.   WHAT TIME PERIOD DID YOU USE TO DEVELOP THE PROPOSED**  
10 **DEPRECIATION RATES?**

11 **A.**   The depreciation rates were developed based on the depreciable property recorded on  
12       the Company's books at September 30, 2014.

13 **Q.   PLEASE SUMMARIZE THE DEPRECIATION STUDY RESULTS WITH**  
14 **RESPECT TO DEPRECIATION RATES.**

15 **A.**   Based on the proposed depreciation rates indicated in the depreciation study, as applied  
16       to plant account balances as of September 30, 2014, the overall change in annual  
17       depreciation and amortization expense for COKS General Office annual depreciation  
18       expense is an increase of approximately \$11 thousand. For Shared Services no  
19       comparison of annual depreciation expense is provided, but the proposed depreciation  
20       expense and rates are shown on Appendix A of Exhibit DAW-3. A more detailed  
21       discussion for each study will follow below.

1                   **A. Depreciation Study Results – Colorado-Kansas General Office**

2   **Q.    WHAT FACTORS INFLUENCE THE DEPRECIATION RATES FOR THE**  
3   **COKS GENERAL OFFICE ACCOUNTS?**

4   **A.**    The primary factors that influence the depreciation rate for an account are: the  
5           remaining investment to be recovered in the account, the depreciable life (ASL) of the  
6           account, and the net salvage for the account.

7   **Q.    DO YOU HAVE ANY INITIAL OBSERVATIONS ABOUT ATMOS ENERGY'S**  
8   **COKS GENERAL OFFICE DEPRECIATION RATES IN GENERAL?**

9   **A.**    Yes. COKS General Office's depreciation expense is increasing slightly from previously  
10          approved levels.

11 **Q.    WHY IS DEPRECIATION EXPENSE INCREASING FOR THE COKS**  
12 **GENERAL OFFICE PROPERTY?**

13 **A.**    The change in depreciation expense, an increase of approximately \$11 thousand, is  
14          primarily attributable to the reserve position.

15 **Q.    WHAT DOES THE TERM RESERVE POSITION MEAN?**

16 **A.**    The term reserve position refers to the comparison of the calculated theoretical reserve to  
17          the existing book reserve.

18 **Q.    WHAT IS THE PURPOSE OF MAKING THE COMPARISON BETWEEN THE**  
19 **THEORETICAL RESERVE AND THE RECORDED BOOK RESERVE?**

20 **A.**    The theoretical reserve is used in a depreciation study to test the adequacy of the existing  
21          book reserve level. In calculating remaining-life depreciation rates, this test assesses the  
22          difference between the calculated theoretical and actual book reserves necessary to  
23          recover the plant investment over its remaining life.

1 **Q. WHAT IS THE BASIS OF THE THEORETICAL RESERVE CALCULATION?**

2 **A.** The theoretical reserve of a group is developed from the estimated remaining life, total  
3 life of the property group, and estimated net salvage. The theoretical reserve represents  
4 the portion of the group cost that would have been accrued if current forecasts were used  
5 throughout the life of the group for future depreciation accruals. Any difference between  
6 the theoretical and book reserve are calculated in the annual depreciation accrual and  
7 resulting depreciation rates.

8 **Q. WHAT METHOD DID YOU USE TO ANALYZE HISTORICAL DATA FOR**  
9 **THE COKS GENERAL OFFICE TO DETERMINE LIFE CHARACTERISTICS?**

10 **A.** All plant accounts were analyzed using actuarial analysis (retirement rate method) to  
11 estimate the life of the property in each account. In much the same manner as human  
12 mortality is analyzed by actuaries, depreciation analysts use models of property mortality  
13 characteristics that have been validated in research and empirical applications. Further  
14 detail of the life method used to analyze the historical data is found in Exhibit DAW-2  
15 on page 10.

16 **Q. HOW DID YOU DETERMINE THE AVERAGE SERVICE LIVES FOR EACH**  
17 **ASSET GROUP?**

18 **A.** The appropriate average service lives for each account in the General Plant function  
19 were determined by using actuarial analysis. Graphs and tables supporting the analysis  
20 and the chosen Iowa Curves used to determine the average service lives for analyzed  
21 accounts are found in the Life Analysis section of Exhibit DAW-2, pages 17-25 and in  
22 the supporting workpapers to the study. A comparison of the existing and proposed  
23 depreciable lives is shown in Exhibit DAW-2, Appendix C.

1 **Q. PLEASE DESCRIBE SOME OF THE CHANGES IN THE AVERAGE SERVICE**  
2 **LIVES FOR THE VARIOUS ACCOUNTS?**

3 **A.** All accounts are classified as General Plant. There are two accounts with increasing  
4 lives, two accounts with decreasing lives, four accounts with no change and one account  
5 where no comparison was possible. The detailed analysis of each account is described  
6 fully in Exhibit DAW-2, pages 17-25. The changes in average service lives are as  
7 follows:

- 8 • The increases in life were in Account 39903, Server Hardware, which increased by one  
9 year and Account 39907 PC Software, which also increased by one year.
- 10 • The decreases in life were in Account 394, Tools Shop & Garage Equipment, which  
11 decreased by one year and Account 398, Miscellaneous Equipment, which decreased by  
12 2 years.

13 **Q. HOW DID YOU DETERMINE THE NET SALVAGE PERCENTAGES FOR**  
14 **EACH ASSET GROUP?**

15 **A.** The establishment of appropriate net salvage percentages for each account was  
16 determined by using the industry-standard method discussed above, which is also the  
17 same method used for the currently approved depreciation rates. The net salvage as a  
18 percent of retirements for various bands (*i.e.*, groupings of years such as the five-year  
19 average) for each account is shown in Appendix D of Exhibit DAW-2. Judgment was  
20 used to select a net salvage percentage that represents the future expectations for each  
21 account. A comparison of the existing and proposed net salvage percentages is shown in  
22 Exhibit DAW-2, Appendix C.

23 **Q. PLEASE DESCRIBE SOME OF THE CHANGES IN THE NET SALVAGE**



1           **PERCENTAGES FOR THE VARIOUS ACCOUNTS?**

2    **A.**    The detailed analysis of each account is described fully in Exhibit DAW-2, starting at  
3           page 17. For the type of assets in the COKS General Office there is generally no salvage  
4           and no cost of removal resulting in a 0 percent net salvage. Currently the net salvage  
5           percentage is 0 percent for all accounts and was retained.

6                           **B. Depreciation Study Results – Shared Services**

7    **Q.    DO THE SAME FACTORS, DESCRIBED PREVIOUSLY, INFLUENCE THE**  
8           **DEPRECIATION RATES FOR THE SHARED SERVICES ACCOUNTS?**

9    **A.**    Yes, the primary factors that influence the depreciation rate for an account are: the  
10           remaining investment to be recovered in the account, the depreciable life (ASL) of the  
11           account, and the net salvage for the account.

12   **Q.    WHAT METHOD DID YOU USE TO ANALYZE HISTORICAL DATA FOR**  
13           **THE SHARED SERVICES TO DETERMINE LIFE CHARACTERISTICS?**

14   **A.**    All plant accounts were analyzed using actuarial analysis (retirement rate method) to  
15           estimate the life of the property in each account. In much the same manner as human  
16           mortality is analyzed by actuaries, depreciation analysts use models of property mortality  
17           characteristics that have been validated in research and empirical applications. Further  
18           detail of the life method used to analyze the historical data is found in Exhibit DAW-3  
19           on page 7.

20   **Q.    HOW DID YOU DETERMINE THE AVERAGE SERVICE LIVES FOR EACH**  
21           **ASSET GROUP?**

22   **A.**    The appropriate average service lives for each account in the General functions were  
23           determined by using actuarial analysis. Graphs and tables supporting the analysis and

1 the chosen Iowa Curves used to determine the average service lives for analyzed  
2 accounts are found in the Life Analysis section of Exhibit DAW-3, pages 17-31 and in  
3 the supporting workpapers to the study. A list of depreciable lives for Shared Services is  
4 shown in Exhibit DAW-3, Appendix C.

5 **Q. HOW DID YOU DETERMINE THE NET SALVAGE PERCENTAGES FOR**  
6 **EACH ASSET GROUP?**

7 **A.** The establishment of appropriate net salvage percentages for each account was  
8 determined by using the industry-standard method discussed above, which is also the  
9 same method used for the currently approved depreciation rates. The net salvage as a  
10 percent of retirements for various bands (*i.e.*, groupings of years such as the five-year  
11 average) for each account is shown in Appendix D of Exhibit DAW-3. Judgment was  
12 used to select a net salvage percentage that represents the future expectations for each  
13 account.

14 **Q. PLEASE DESCRIBE THE NET SALVAGE PERCENTAGES FOR THE**  
15 **VARIOUS ACCOUNTS?**

16 **A.** The detailed analysis of each account is described fully in Exhibit DAW-3, starting at  
17 page 17. Typically for the type of assets in Shared Services there is no salvage and no  
18 cost of removal, resulting in a 0 percent net salvage. However, Account 392,  
19 Transportation Equipment has a positive 10 percent net salvage recommended.

20  
21 **V. CONCLUSION**

22 **Q. DO YOU HAVE ANY CONCLUDING REMARKS?**

1 A. Yes. The depreciation studies and analysis were performed under my supervision using  
2 standard depreciation processes and methodologies. The studies followed standard  
3 depreciation rate calculation methods. Atmos Energy should continue to periodically  
4 review the annual depreciation rates for its property so that appropriate rates are included  
5 in its revenue requirements to ensure intergenerational equity to its customers. In this  
6 way, the Company's depreciation expense will more accurately reflect its cost of  
7 operations and the rates for all customers will include an appropriate share of the capital  
8 expended for their benefit. The proposed depreciation rates contained in the studies as of  
9 September 30, 2014, Exhibits DAW-2 and DAW-3, are the result of complete,  
10 comprehensive depreciation studies, are reasonable and appropriate given that they  
11 incorporate the service life and net salvage parameters currently anticipated for each of  
12 the property group investments over their average remaining lives, and should be  
13 approved.

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

15 **A.** Yes, it does.

VERIFICATION

STATE OF TEXAS       )  
                                  )  
COUNTY OF COLLIN    )

Dane A. Watson, being duly sworn upon his oath, deposes and states that he is a Partner of Alliance Consulting Group; that he has read and is familiar with the foregoing Direct Testimony filed herewith; and that the statements made therein are true to the best of his knowledge, information and belief.

Dane A. Watson  
Dane A. Watson

Subscribed and sworn before me this 24<sup>th</sup> day of July, 2015.

Kristen Vela  
Notary Public

My appointment expires: 1/7/19



## **Statement of Qualifications**

**Dane A. Watson, P.E., CDP**

I am the Managing Partner of the Alliance Consulting Group - one of the premier consulting firms serving utility industries in the United States. As Managing Partner, I oversee and conduct depreciation studies for utilities across the U.S. I have 30 years of experience in utility property accounting, depreciation, and valuation. I have an industry-wide reputation with significant experience as an expert witness in depreciation, valuation and rate base areas and have provided testimony and support in more than 100 state or federal regulatory commission dockets. I have conducted depreciation studies for a variety of assets for both regulated and non-regulated companies.

The Society of Depreciation Professionals ("the Society") has established national standards for depreciation professionals. The Society administers an examination and has certain required qualifications to become certified in this field. I met all requirements and have become a Certified Depreciation Professional ("CDP"). In addition, I am a registered Professional Engineer in the state of Texas.

I received a Bachelor of Science degree in Electrical Engineering from the University of Arkansas at Fayetteville in 1985. I also received a Masters degree in Business Administration from Amber University in 1991.

Since graduation from college in 1985, I have worked in the area of depreciation and valuation. I founded Alliance Consulting Group in 2004 and am responsible for conducting depreciation, valuation and certain accounting-related studies for utilities in various industries. My duties related to depreciation studies include the assembly and analysis of historical and simulated data, conducting field reviews, determining service life and net salvage estimates, calculating annual depreciation, presenting recommended depreciation rates to utility management for its consideration, and supporting such rates before regulatory bodies.

My prior employment from 1985 to 2004 was with Texas Utilities ("TXU"). During my tenure with TXU, I was responsible for, among other things, conducting valuation and depreciation studies for the domestic TXU companies. During that time, I served as Manager of Property Accounting Services and Records Management in addition to my depreciation responsibilities. My responsibilities included testifying in 15 rate or restructuring proceedings

before various Commissions including the Texas Railroad Commission, the Texas Public Utilities Commission and the FERC. I led the Sarbanes-Oxley implementation for property processes. During my tenure at TXU, I increased scope of my position to managing all fixed asset and construction accounting, inventory accounting, transportation accounting, fixed asset accounting systems and corporate wide records management. I led efforts to convert 14 companies to a new fixed asset system. I restructured the valuation system to provide 90% faster response time and implemented new construction/fixed asset systems that facilitated a 12 FTE reduction in staff. I also built a state-of-the-art lease accounting system to handle reporting and payment of all TXU leases as well as a highly automated imaging system to replace microfilm and paper document storage and retrieval systems reducing costs and shortening response time.

In addition, I have held a number of national industry roles related to depreciation and property accounting including twice chairing the Plant Accounting and Valuation Committee of the Edison Electric Institute. I attended all the classes offered by the Depreciation Programs, Inc. (DPI) and continues to refresh my training by attending (and teaching) various depreciation related seminars across the country. I developed training materials for the Advanced Training session of the Society for Depreciation Professionals. Multiple times, I served as general editor of the industry publication "Introduction to Depreciation and Net Salvage of Public Utility Plant and Plant of Other Industries", am contributing editor to other industry publications and am a frequent speaker at conferences on depreciation related issues. I also led the industry adoption of SFAS 143 and was industry panelist before FERC (FERC Docket 02-0700) testifying on their implementation of SFAS 143.

I have twice been Chair of the Edison Electric Institute ("EEI") Property Accounting and Valuation Committee and have been Chairman of EEI's Depreciation and Economic Issues Subcommittee. I am a Registered Professional Engineer ("PE") in the State of Texas and a Certified Depreciation Professional. I am a Senior Member of the Institute of Electrical and Electronics Engineers ("IEEE") and have held numerous offices on the Executive Board of the Dallas Section of IEEE as well as national and worldwide offices. I am also Past President of the Society of Depreciation Professionals and will again serve as President in 2015.

| <b>Asset Location</b> | <b>Commission</b>                       | <b>Docket (If Applicable)</b> | <b>Company</b>                   | <b>Year</b> | <b>Description</b>                       |
|-----------------------|---|-------------------------------|----------------------------------|-------------|--|
| Texas                 | Public Utility Commission of Texas      | 44746                         | Wind Energy Transmission Texas   | 2015        | Electric Depreciation Study              |
| Colorado              | Colorado Public Utilities Commission    | 15-AL-0299G                   | Atmos Colorado                   | 2015        | Gas Depreciation Study                   |
| Arkansas              | Arkansas Public Service Commission      | 15-011-U                      | Source Gas Arkansas              | 2015        | Gas Depreciation Study                   |
| Texas                 | Railroad Commission of Texas            | GUD 10432                     | CenterPoint-Texas Coast Division | 2015        | Gas Depreciation Study                   |
| Kansas                | Kansas Corporation Commission           | 15-KCPE-116-RTS               | Kansas City Power and Light      | 2015        | Electric Depreciation Study              |
| Alaska                | Regulatory Commission of Alaska         | U-14-120                      | Alaska Electric Light and Power  | 2014-2015   | Electric Depreciation Study              |
| Texas                 | Public Utility Commission of Texas      | 43950                         | Cross Texas Transmission         | 2014        | Electric Depreciation Study              |
| New Mexico            | New Mexico Public Regulation Commission | 14-00332-UT                   | Public Service of New Mexico     | 2014        | Electric Depreciation Study              |
| Texas                 | Public Utility Commission of Texas      | 43695                         | Xcel Energy                      | 2014        | Electric Depreciation Study              |
| Multi State – SE US   | FERC                                    | RP15-101                      | Florida Gas Transmission         | 2014        | Gas Transmission Depreciation Study      |
| California            | California Public Utilities Commission  | A.14-07-006                   | Golden State Water               | 2014        | Water and Waste Water Depreciation Study |

|                   |   |              |                            |           |  |
|-------------------|---|--------------|----------------------------|-----------|--|
| Michigan          | Michigan Public Service Commission      | U-17653      | Consumers Energy Company   | 2014      | Electric and Common Depreciation Study   |
| Colorado          | Public Utilities Commission of Colorado | I4AL-0660E   | Public Service of Colorado | 2014      | Electric Depreciation Study  |
| Wisconsin         | Wisconsin                               | 05-DU-102    | WE Energies                | 2014      | Electric, Gas, Steam and Common Depreciation Studies                                 |
| Texas             | Public Utility Commission of Texas      | 42469        | Lone Star Transmission     | 2014      | Electric Depreciation Study  |
| Nebraska          | Nebraska Public Service Commission      | NG-0079      | Source Gas Nebraska        | 2014      | Gas Depreciation Study   |
| Alaska            | Regulatory Commission of Alaska         | U-14-055     | TDX North Slope Generating | 2014      | Electric Depreciation Study  |
| Alaska            | Regulatory Commission of Alaska         | U-14-054     | Sand Point Generating LLC  | 2014      | Electric Depreciation Study  |
| Alaska            | Regulatory Commission of Alaska         | U-14-045     | Matanuska Electric Coop    | 2014      | Electric Generation Depreciation Study   |
| Texas, New Mexico | Public Utility Commission of Texas      | 42004        | Xcel Energy                | 2013-2014 | Electric Production, Transmission, Distribution and General Plant Depreciation Study |
| New Jersey        | Board of Public Utilities               | GR13111137   | South Jersey Gas           | 2013      | Gas Depreciation Study   |
| Various           | FERC                                    | RP14-247-000 | Sea Robin                  | 2013      | Gas Depreciation Study   |



|                               |   |                             |                                 |      |   |
|-------------------------------|---|-----------------------------|---------------------------------|------|---|
| Arkansas                      | Arkansas Public Service Commission      | 13-078-U                    | Arkansas Oklahoma Gas           | 2013 | Gas Depreciation Study  |
| Arkansas                      | Arkansas Public Service Commission      | 13-079-U                    | Source Gas Arkansas             | 2013 | Gas Depreciation Study  |
| California                    | California Public Utilities Commission  | Proceeding No.: A.13-11-003 | Southern California Edison      | 2013 | Electric Depreciation Study                                     |
| North Carolina/South Carolina | FERC                                    | ER13-1313                   | Progress Energy Carolina        | 2013 | Electric Depreciation Study                                     |
| Wisconsin                     | Public Service Commission of Wisconsin  | 4220-DU-108                 | Northern States Power-Wisconsin | 2013 | Electric, Gas and Common Transmission, Distribution and General |
| Texas                         | Public Utility Commission of Texas      | 41474                       | Sharyland                       | 2013 | Electric Depreciation Study                                     |
| Kentucky                      | Kentucky Public Service Commission      | 2013-00148                  | Atmos Energy Corporation        | 2013 | Gas Depreciation Study  |
| Minnesota                     | Minnesota Public Utilities Commission   | 13-252                      | Allete Minnesota Power          | 2013 | Electric Depreciation Study                                     |
| New Hampshire                 | New Hampshire Public Service Commission | DE 13-063                   | Liberty Utilities               | 2013 | Electric Distribution and General                               |
| Texas                         | Railroad Commission of Texas            | 10235                       | West Texas Gas                  | 2013 | Gas Depreciation Study  |
| Alaska                        | Regulatory Commission of Alaska         | U-12-154                    | Alaska Telephone Company        | 2012 | Telecommunications Utility                                      |
| New Mexico                    | New Mexico Public Regulation Commission | 12-00350-UT                 | SPS                             | 2012 | Electric Depreciation Study                                     |

|                |   |                   |   |      |   |
|----------------|---|-------------------|---|------|---|
| Colorado       | Colorado Public Utilities Commission        | 12AL-1269ST       | Public Service of Colorado                  | 2012 | Gas and Steam Depreciation Study                                |
| Colorado       | Colorado Public Utilities Commission        | 12AL-1268G        | Public Service of Colorado                  | 2012 | Gas and Steam Depreciation Study                                |
| Alaska         | Regulatory Commission of Alaska             | U-12-149          | Municipal Power and Light City of Anchorage | 2012 | Electric Depreciation Study                                     |
| Texas          | Texas Public Utility Commission             | 40824             | Xcel Energy                                 | 2012 | Electric Depreciation Study                                     |
| South Carolina | Public Service Commission of South Carolina | Docket 2012-384-E | Progress Energy Carolina                    | 2012 | Electric Depreciation Study                                     |
| Alaska         | Regulatory Commission of Alaska             | U-12-141          | Interior Telephone Company                  | 2012 | Telecommunications Utility                                      |
| Michigan       | Michigan Public Service Commission          | U-17104           | Michigan Gas Utilities Corporation          | 2012 | Gas Depreciation Study  |
| North Carolina | North Carolina Utilities Commission         | E-2 Sub 1025      | Progress Energy Carolina                    | 2012 | Electric Depreciation Study                                     |
| Texas          | Texas Public Utility Commission             | 40606             | Wind Energy Transmission Texas              | 2012 | Electric Depreciation Study                                     |
| Texas          | Texas Public Utility Commission             | 40604             | Cross Texas Transmission                    | 2012 | Electric Depreciation Study                                     |
| Minnesota      | Minnesota Public Utilities Commission       | 12-858            | Minnesota Northern States Power             | 2012 | Electric, Gas and Common Transmission, Distribution and General |

|            |   |                 |                                  |      |                             |
|------------|---|-----------------|----------------------------------|------|-----------------------------|
| Texas      | Railroad Commission of Texas            | 10170           | Atmos Mid-Tex                    | 2012 | Gas Depreciation Study      |
| Texas      | Railroad Commission of Texas            | 10174           | Atmos West Texas                 | 2012 | Gas Depreciation Study      |
| Texas      | Railroad Commission of Texas            | 10182           | CenterPoint Beaumont/ East Texas | 2012 | Gas Depreciation Study      |
| Kansas     | Kansas Corporation Commission           | 12-KCPE-764-RTS | Kansas City Power and Light      | 2012 | Electric Depreciation Study |
| Nevada     | Public Utility Commission of Nevada     | 12-04005        | Southwest Gas                    | 2012 | Gas Depreciation Study      |
| Texas      | Railroad Commission of Texas            | 10147, 10170    | Atmos Mid-Tex                    | 2012 | Gas Depreciation Study      |
| Kansas     | Kansas Corporation Commission           | 12-ATMG-564-RTS | Atmos Kansas                     | 2012 | Gas Depreciation Study      |
| Texas      | Texas Public Utility Commission         | 40020           | Lone Star Transmission           | 2012 | Electric Depreciation Study |
| Michigan   | Michigan Public Service Commission      | U-16938         | Consumers Energy Company         | 2011 | Gas Depreciation Study      |
| Colorado   | Public Utilities Commission of Colorado | 11AL-947E       | Public Service of Colorado       | 2011 | Electric Depreciation Study |
| Texas      | Texas Public Utility Commission         | 39896           | Entergy Texas                    | 2011 | Electric Depreciation Study |
| MultiState | FERC                                    | ER12-212        | American Transmission Company    | 2011 | Electric Depreciation Study |
| California | California Public Utilities Commission  | A1011015        | Southern California Edison       | 2011 | Electric Depreciation Study |

|                      |   |                |                                     |      |                               |
|----------------------|---|----------------|-------------------------------------|------|-------------------------------|
| Mississippi          | Mississippi Public Service Commission     | 2011-UN-184    | Atmos Energy                        | 2011 | Gas Depreciation Study        |
| Texas                | Texas Commission on Environmental Quality | Matter 37050-R | Southwest Water Company             | 2011 | WasteWater Depreciation Study |
| Texas                | Texas Commission on Environmental Quality | Matter 37049-R | Southwest Water Company             | 2011 | Water Depreciation Study      |
| Michigan             | Michigan Public Service Commission        | U-16536        | Consumers Energy Company            | 2011 | Wind Depreciation Rate Study  |
| Texas                | Public Utility Commission of Texas        | 38929          | Oncor                               | 2011 | Electric Depreciation Study   |
| Texas                | Railroad Commission of Texas              | 10038          | CenterPoint South TX                | 2010 | Gas Depreciation Study        |
| Alaska               | Regulatory Commission of Alaska           | U-10-070       | Inside Passage Electric Cooperative | 2010 | Electric Depreciation Study   |
| Texas                | Public Utility Commission of Texas        | 36633          | City Public Service of San Antonio  | 2010 | Electric Depreciation Study   |
| Texas                | Texas Railroad Commission                 | 10000          | Atmos Pipeline Texas                | 2010 | Gas Depreciation Study        |
| Multi State – SE US  | FERC                                      | RP10-21-000    | Florida Gas Transmission            | 2010 | Gas Depreciation Study        |
| Maine/ New Hampshire | FERC                                      | 10-896         | Granite State Gas Transmission      | 2010 | Gas Depreciation Study        |
| Texas                | Public Utility Commission of Texas        | 38480          | Texas New Mexico Power              | 2010 | Electric Depreciation Study   |

|             |                                       |           |                                    |           |   |
|-------------|---------------------------------------|-----------|------------------------------------|-----------|---|
| Texas       | Public Utility Commission of Texas    | 38339     | CenterPoint Electric               | 2010      | Electric Depreciation Study                 |
| California  | California Public Utility Commission  | A10071007 | California American Water          | 2009-2010 | Water and Waste Water Depreciation Study    |
| Texas       | Texas Railroad Commission             | 10041     | Atmos Amarillo                     | 2010      | Gas Depreciation Study                      |
| Georgia     | Georgia Public Service Commission     | 31647     | Atlanta Gas Light                  | 2010      | Gas Depreciation Study                      |
| Texas       | Public Utility Commission of Texas    | 38147     | Southwestern Public Service        | 2010      | Electric Technical Update                   |
| Alaska      | Regulatory Commission of Alaska       | U-09-015  | Alaska Electric Light and Power    | 2009-2010 | Electric Depreciation Study                 |
| Alaska      | Regulatory Commission of Alaska       | U-10-043  | Utility Services of Alaska         | 2009-2010 | Water Depreciation Study                    |
| Michigan    | Michigan Public Service Commission    | U-16055   | Consumers Energy/DTE Energy        | 2009-2010 | Ludington Pumped Storage Depreciation Study |
| Michigan    | Michigan Public Service Commission    | U-16054   | Consumers Energy                   | 2009-2010 | Electric Depreciation Study                 |
| Michigan    | Michigan Public Service Commission    | U-15963   | Michigan Gas Utilities Corporation | 2009      | Gas Depreciation Study                      |
| Michigan    | Michigan Public Service Commission    | U-15989   | Upper Peninsula Power Company      | 2009      | Electric Depreciation Study                 |
| Texas       | Railroad Commission of Texas          | 9869      | Atmos Energy                       | 2009      | Shared Services Depreciation Study          |
| Mississippi | Mississippi Public Service Commission | 09-UN-334 | CenterPoint Energy Mississippi     | 2009      | Gas Depreciation Study                      |

|                 |   |                |                            |           |  |
|-----------------|---|----------------|----------------------------|-----------|--|
| Texas           | Railroad Commission of Texas            | 9902           | CenterPoint Energy Houston | 2009      | Gas Depreciation Study   |
| Wyoming         | Wyoming Public Service Commission       | 30022-148-GR10 | Source Gas                 | 2009-2010 | Gas Depreciation Study   |
| Colorado        | Colorado Public Utilities Commission    | 09AL-299E      | Public Service of Colorado | 2009      | Electric Depreciation Study  |
| Tennessee       | Tennessee Regulatory Authority          | 11-00144       | Piedmont Natural Gas       | 2009      | Gas Depreciation Study   |
| Louisiana       | Louisiana Public Service Commission     | U-30689        | Cleco                      | 2008      | Electric Depreciation Study  |
| Texas           | Public Utility Commission of Texas      | 35763          | SPS                        | 2008      | Electric Production, Transmission, Distribution and General Plant Depreciation Study |
| Wisconsin       | Wisconsin                               | 05-DU-101      | WE Energies                | 2008      | Electric, Gas, Steam and Common Depreciation Studies                                 |
| North Dakota    | North Dakota Public Service Commission  | PU-07-776      | Northern States Power      | 2008      | Net Salvage  |
| New Mexico      | New Mexico Public Regulation Commission | 07-00319-UT    | SPS                        | 2008      | Testimony – Depreciation   |
| Multiple States | Railroad Commission of Texas            | 9762           | Atmos Energy               | 2007-2008 | Shared Services Depreciation Study   |
| Minnesota       | Minnesota Public Utilities Commission   | E015/D-08-422  | Minnesota Power            | 2007-2008 | Electric Depreciation Study  |

|                   |                                      |           |                                 |           |  |
|-------------------|--------------------------------------|-----------|---------------------------------|-----------|--|
| Texas             | Public Utility Commission of Texas   | 35717     | Oncor                           | 2008      | Electric Depreciation Study  |
| Texas             | Public Utility Commission of Texas   | 34040     | Oncor                           | 2007      | Electric Depreciation Study  |
| Michigan          | Michigan Public Service Commission   | U-15629   | Consumers Energy                | 2006-2009 | Gas Depreciation Study   |
| Colorado          | Colorado Public Utilities Commission | 06-234-EG | Public Service of Colorado      | 2006      | Electric Depreciation Study  |
| Arkansas          | Arkansas Public Service Commission   | 06-161-U  | CenterPoint Energy -- Arkla Gas | 2006      | Gas Distribution Depreciation Study and Removal Cost Study                           |
| Texas, New Mexico | Public Utility Commission of Texas   | 32766     | Xcel Energy                     | 2005-2006 | Electric Production, Transmission, Distribution and General Plant Depreciation Study |
| Texas             | Railroad Commission of Texas         | 9670/9676 | Atmos Energy Corp               | 2005-2006 | Gas Distribution Depreciation Study  |
| Texas             | Railroad Commission of Texas         | 9400      | TXU Gas                         | 2003-2004 | Gas Distribution Depreciation Study  |
| Texas             | Railroad Commission of Texas         | 9313      | TXU Gas                         | 2002      | Gas Distribution Depreciation Study  |
| Texas             | Railroad Commission of Texas         | 9225      | TXU Gas                         | 2002      | Gas Distribution Depreciation Study  |
| Texas             | Public Utility Commission of Texas   | 24060     | TXU                             | 2001      | Line Losses  |
| Texas             | Public Utility Commission of Texas   | 23640     | TXU                             | 2001      | Line Losses  |

|       |                                    |           |              |           |   |
|-------|------------------------------------|-----------|--------------|-----------|---|
| Texas | Railroad Commission of Texas       | 9145-9148 | TXU Gas      | 2000-2001 | Gas Distribution Depreciation Study     |
| Texas | Public Utility Commission of Texas | 22350     | TXU          | 2000-2001 | Electric Depreciation Study, Unbundling |
| Texas | Railroad Commission of Texas       | 8976      | TXU Pipeline | 1999      | Pipeline Depreciation Study             |
| Texas | Public Utility Commission of Texas | 20285     | TXU          | 1999      | Fuel Company Depreciation Study         |
| Texas | Public Utility Commission of Texas | 18490     | TXU          | 1998      | Transition to Competition               |
| Texas | Public Utility Commission of Texas | 16650     | TXU          | 1997      | Customer Complaint                      |
| Texas | Public Utility Commission of Texas | 15195     | TXU          | 1996      | Mining Company Depreciaton Study        |
| Texas | Public Utility Commission of Texas | 12160     | TXU          | 1993      | Fuel Company Depreciation Study         |
| Texas | Public Utility Commission of Texas | 11735     | TXU          | 1993      | Electric Depreciation Study             |



**ATMOS ENERGY CORPORATION  
COLORADO KANSAS GENERAL OFFICE  
PROPERTY  
DEPRECIATION RATE STUDY  
As of September 30, 2014**



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**ATMOS ENERGY CORPORATION**  
**COLORADO KANSAS GENERAL OFFICE PROPERTY**  
**DEPRECIATION RATE STUDY**  
**EXECUTIVE SUMMARY**

Atmos Energy Corporation (“Atmos” or “Company”) engaged Alliance Consulting Group to conduct a depreciation study of the Company’s Colorado Kansas General Office (“COKS General Office”) depreciable assets as of fiscal year end September 30, 2014. COKS General Office provides support to Atmos Energy Corporation’s regulated utility divisions which at the year ended September 30, 2014 were:

- Colorado; and
- Kansas

The existing depreciation rates were based on the straight-line method, equal life group (“ELG”) procedure, and remaining-life technique and the same method, procedure and technique are retained in this study. This study recommends an increase of \$11 thousand in annual depreciation expense when compared to the depreciation rates currently in effect. This study results in an annual depreciation expense accrual of \$255 thousand when applied to depreciable plant balances as of September 30, 2014. There were two accounts where lives increased and two accounts where lives decreased, five accounts remained unchanged and one account where no comparison could be made. There was no change in any account net salvage.

The depreciation study conducted analyzed and developed depreciation recommendations at an account level. The resulting annual depreciation accrual amounts and depreciation rates contained in this study are at the account level. The Company will accrue depreciation expense based on the account level depreciation rates developed in this study. Appendix A demonstrates the annual depreciation expense.

**ATMOS ENERGY CORPORATION**  
**COLORADO KANSAS GENERAL OFFICE PROPERTY**  
**DEPRECIATION RATE STUDY**  
**As of September 30, 2014**  
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## **PURPOSE**

The purpose of this study is to develop depreciation rates for the depreciable property as recorded on COKS General Office's books at September 30, 2014. The account based depreciation rates were designed to recover the total remaining undepreciated investment, adjusted for net salvage, over the remaining life of property on a straight-line basis. Non-depreciable property and property which is amortized, such as intangibles were excluded from this study.

COKS General Office is a division of Atmos Corporation dedicated to providing various support services to two of its regulated gas utility operating companies in the states of Colorado and Kansas. COKS General Office serves over 240,000 customers across these states.

## STUDY RESULTS

The existing and current study annual depreciation expense results from the use of Iowa Curve dispersion patterns with average service life, the equal life group ("ELG") procedure and remaining-life technique, and consideration of net salvage in the development of the study recommended depreciation rates. Detailed information for each of these factors will follow in this report.

Overall depreciation rates for COKS General Office depreciable property are shown in Appendix A. These rates translate into an annual depreciation accrual of \$255 thousand based on depreciable investment at September 30, 2014. The annual equivalent depreciation expense calculated by the same method using the currently approved rates was \$244 thousand. The primary driver for the increase in the annual depreciation expense when compared to the existing is related to the reserve position.

Appendix A presents a comparison of the composite existing rates versus the recommended study rates. Appendix B presents the development of the depreciation rates and annual accruals. Appendix C presents the mortality and net salvage parameters by account. Appendix D shows net salvage history by plant account.

## GENERAL DISCUSSION

### Definition

The term "depreciation" as used in this study is considered in the accounting sense, that is, a system of accounting that distributes the cost of assets, less net salvage (if any), over the estimated useful life of the assets in a systematic and rational manner. It is a process of allocation, not valuation. This expense is systematically allocated to accounting periods over the life of the properties. The amount allocated to any one accounting period does not necessarily represent the loss or decrease in value that will occur during that particular period. The Company accrues depreciation on the basis of the original cost of all depreciable property included in each functional property group. On retirement the full cost of depreciable property, less the net salvage value, is charged to the depreciation reserve.

### Basis of Depreciation Estimates

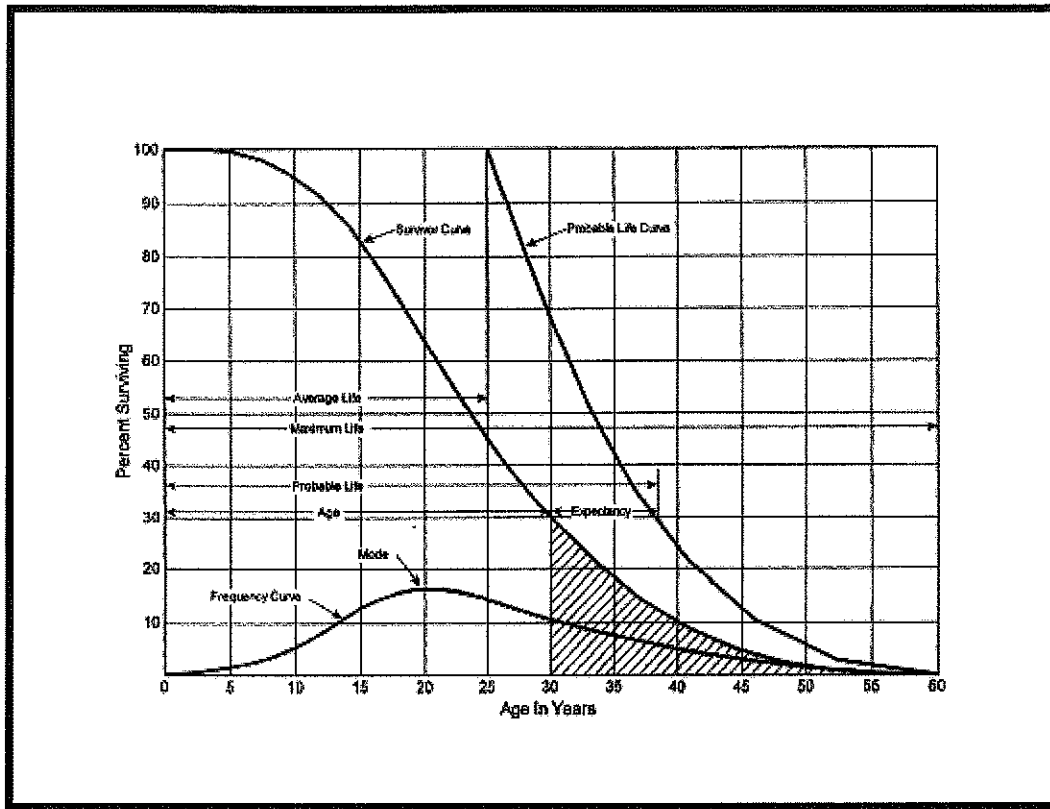
The straight-line, equal life group ("ELG"), remaining-life depreciation system was employed to calculate annual and accrued depreciation in this study. In this system, the annual depreciation expense for each group is computed by dividing the original cost of the asset less allocated depreciation reserve less estimated net salvage by its respective equal life group remaining life. The resulting annual accrual amounts of all depreciable property within a function were accumulated, and the total was divided by the original cost of all functional depreciable property to determine the depreciation rate. The calculated remaining lives and annual depreciation accrual rates were based on attained ages of plant in service and the estimated service life and salvage characteristics of each depreciable group. The computations of the annual depreciation rates are shown in Appendix B and remaining life calculations are provided in the workpapers.

Actuarial analysis was used with each account within a function where

sufficient data was available, and judgment was used to some degree on all accounts.

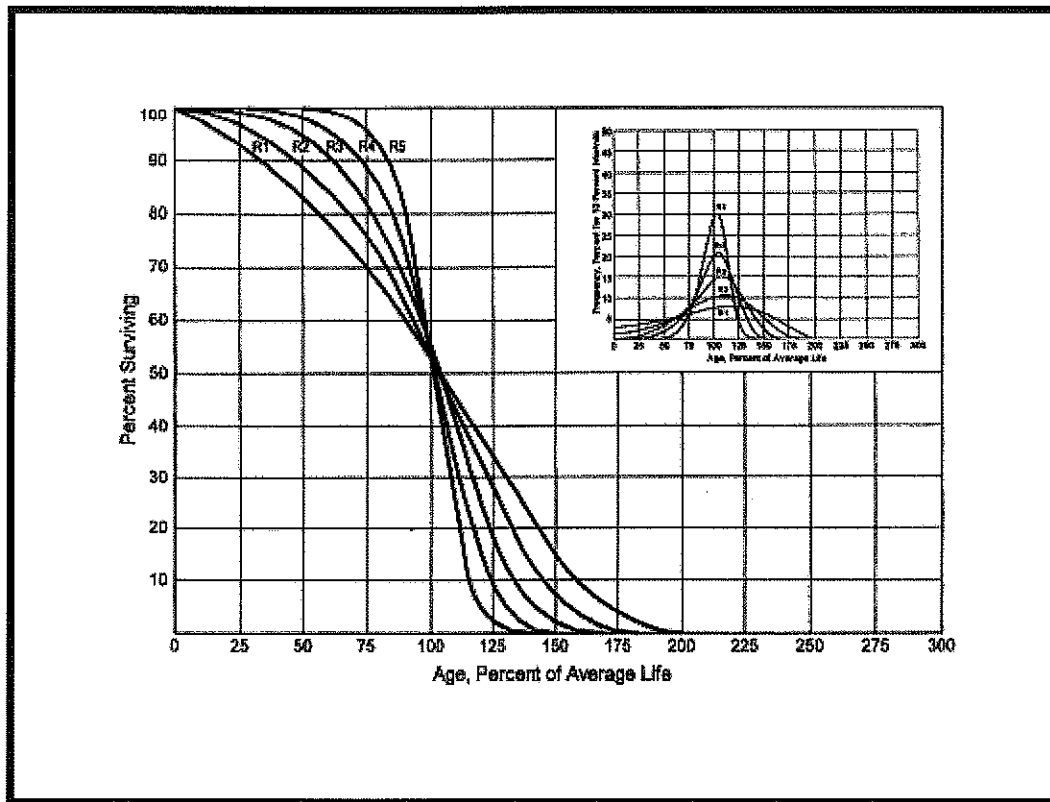
### **Survivor Curves**

To fully understand depreciation projections in a regulated utility setting, there must be a basic understanding of survivor curves. Individual property units within a group do not normally have identical lives or investment amounts. The average life of a group can be determined by first constructing a survivor curve which is plotted as a percentage of the units surviving at each age. A survivor curve represents the percentage of property remaining in service at various age intervals. The Iowa Curves are the result of an extensive investigation of life characteristics of physical property made at Iowa State College Engineering Experiment Station in the first half of the prior century. Through common usage, revalidation and regulatory acceptance, these curves have become a descriptive standard for the life characteristics of industrial property. An example of an Iowa Curve is shown below.



There are four families in the Iowa Curves that are distinguished by the relation of the age at the retirement mode (largest annual retirement frequency) and the average life. For distributions with the mode age greater than the average life, an "R" designation (i.e., Right modal) is used. The family of "R" moded curves is shown below.





Similarly, an "S" designation (i.e., Symmetric modal) is used for the family whose mode age is symmetric about the average life. An "L" designation (i.e., Left modal) is used for the family whose mode age is less than the average life. A special case of left modal dispersion is the "O" or origin modal curve family. Within each curve family, numerical designations are used to describe the relative magnitude of the retirement frequencies at the mode. A "6" indicates that the retirements are not greatly dispersed from the mode (i.e., high mode frequency) while a "1" indicates a large dispersion about the mode (i.e., low mode frequency). For example, a curve with an average life of 30 years and an "L3" dispersion is a moderately dispersed, left modal curve that can be designated as a 30 L3 Curve. An SQ, or square, survivor curve occurs where no dispersion is present (i.e., units of common age retire simultaneously).

Most property groups can be closely fitted to one Iowa Curve with a unique

average service life. The blending of judgment concerning current conditions and future trends along with the matching of historical data permits the depreciation analyst to make an informed selection of an account's average life and retirement dispersion pattern.

### **Actuarial Analysis**

Actuarial analysis (retirement rate method) was used in evaluating historical asset retirement experience where vintage data were available and sufficient retirement activity was present. In actuarial analysis, interval exposures (total property subject to retirement at the beginning of the age interval, regardless of vintage) and age interval retirements are calculated. The complement of the ratio of interval retirements to interval exposures establishes a survivor ratio. The survivor ratio is the fraction of property surviving to the end of the selected age interval, given that it has survived to the beginning of that age interval. Survivor ratios for all of the available age intervals were chained by successive multiplications to establish a series of survivor factors, collectively known as an observed life table. The observed life table shows the experienced mortality characteristic of the account and may be compared to standard mortality curves such as the Iowa Curves. Where data was available, accounts were analyzed using this method. Placement bands were used to illustrate the composite history over a specific era, and experience bands were used to focus on retirement history for all vintages during a set period. The results from these analyses for those accounts which had data sufficient to be analyzed using this method are shown in the Life Analysis section of this report.

## **Judgment**

Any depreciation study requires informed judgment by the analyst conducting the study. A knowledge of the property being studied, company policies and procedures, general trends in technology and industry practice, and a sound basis of understanding depreciation theory are needed to apply this informed judgment. Judgment was used in areas such as survivor curve modeling and selection, depreciation method selection, simulated plant record method analysis, and actuarial analysis.

Judgment is not defined as being used in cases where there are specific, significant pieces of information that influence the choice of a life or curve. Those cases would simply be a reflection of specific facts into the analysis. Where there are multiple factors, activities, actions, property characteristics, statistical inconsistencies, implications of applying certain curves, property mix in accounts or a multitude of other considerations that impact the analysis (potentially in various directions), judgment is used to take all of these factors and synthesize them into a general direction or understanding of the characteristics of the property. Individually, no one factor in these cases may have a substantial impact on the analysis, but overall, may shed light on the utilization and characteristics of assets. Judgment may also be defined as deduction, inference, wisdom, common sense, or the ability to make sensible decisions. There is no single correct result from statistical analysis; hence, there is no answer absent judgment. At the very least for example, any analysis requires choosing which bands to place more emphasis.

The establishment of appropriate average service lives and retirement dispersions for COKS General Office' accounts requires judgment to incorporate the understanding of the operation of the system with the available accounting information analyzed using the Retirement Rate actuarial methods. The appropriateness of lives and curves depends not only on statistical analyses, but also on how well future retirement patterns will match past retirements.

Current applications and trends in use of the equipment also need to be factored into life and survivor curve choices in order for appropriate mortality characteristics to be chosen.

### **Equal Life Group Depreciation**

Atmos agreed that the continued use of the ELG depreciation procedure was appropriate. This study uses the ELG depreciation procedure to group the assets within each account. After an average service life and dispersion were selected for each account, those parameters were used to estimate what portion of the surviving investment of each vintage was expected to retire. The depreciation of the group continues until all investment in the vintage group is retired. ELG groups are defined by their respective account dispersion, life, and net salvage estimates. A straight-line rate for each ELG group is computed and accumulated across each vintage. The resulting rate for each ELG group is designed to recover all retirements less net salvage as each vintage retires. The ELG procedure recovers net book cost over the life of each ELG group rather than averaging many components. It also closely matches the concept of component or item accounting found in all accounting textbooks.

### **Theoretical Depreciation Reserve**

The Company's book depreciation reserves were reallocated based on the theoretical reserves for each account. This study used a reserve model that relied on a prospective concept relating future retirement and accrual patterns for property, given current life and salvage estimates. The theoretical reserve of a group is developed from the estimated remaining life, total life of the property group, and estimated net salvage. The theoretical reserve represents the portion of the group cost that would have been accrued if current forecasts were used throughout the life of the group for future depreciation accruals. The computation involves multiplying the vintage balances within the group by the theoretical reserve ratio for each

vintage. The equal life group method requires an estimate of dispersion and service life to establish how much of each vintage is expected to be retired in each year until all property within the vintage is retired. Estimated average service lives and dispersion determine the amount within each equal life group. The equal life group-remaining-life theoretical reserve ratio (RRELG) is calculated as:

$$RRELG = 1 - \frac{(ELG \text{ Remaining Life})}{(ELG \text{ Life})} * (1 - \text{Net Salvage Ratio})$$

## DETAILED DISCUSSION

### Depreciation Study Process

This depreciation study encompassed four distinct phases. The first phase involved data collection and field interviews. The second phase was where the initial data analysis occurred. The third phase was where the information and analysis was evaluated. Once the first three stages were complete, the fourth phase began. This phase involved the calculation of depreciation rates and documenting the corresponding recommendations.

During the Phase I data collection process, historical data was compiled from continuing property records and general ledger systems. Data was validated for accuracy by extracting and comparing to multiple financial system sources. Audit of this data was validated against historical data from prior periods, historical general ledger sources, and field personnel discussions. This data was reviewed extensively to put in the proper format for a depreciation study. Further discussion on data review and adjustment is found in the Salvage Considerations Section of this study. Also as part of the Phase I data collection process, numerous discussions were conducted with engineers and field operations personnel to obtain information that would assist in formulating life and salvage recommendations in this study. One of the most important elements of performing a proper depreciation study is to understand how the Company utilizes assets and the environment of those assets. Interviews with engineering and operations personnel are important ways to allow the analyst to obtain information that is beneficial when evaluating the output from the life and net salvage programs in relation to the Company's actual asset utilization and environment. Information that was gleaned in these discussions is found both in the Detailed Discussion of this study in the life analysis and salvage analysis sections and also in workpapers.

Phase 2 is where the actuarial analysis is performed. Phase 2 and 3 overlap to a significant degree. The detailed property records information is used in phase 2 to develop observed life tables for life analysis. These tables are visually compared to industry standard tables to determine historical life characteristics. It is possible that the analyst would cycle back to this phase based on the evaluation process performed in phase 3. Net salvage analysis consists of compiling historical salvage and removal data by functional group to determine values and trends in gross salvage and removal cost. This information was then carried forward into phase 3 for the evaluation process.

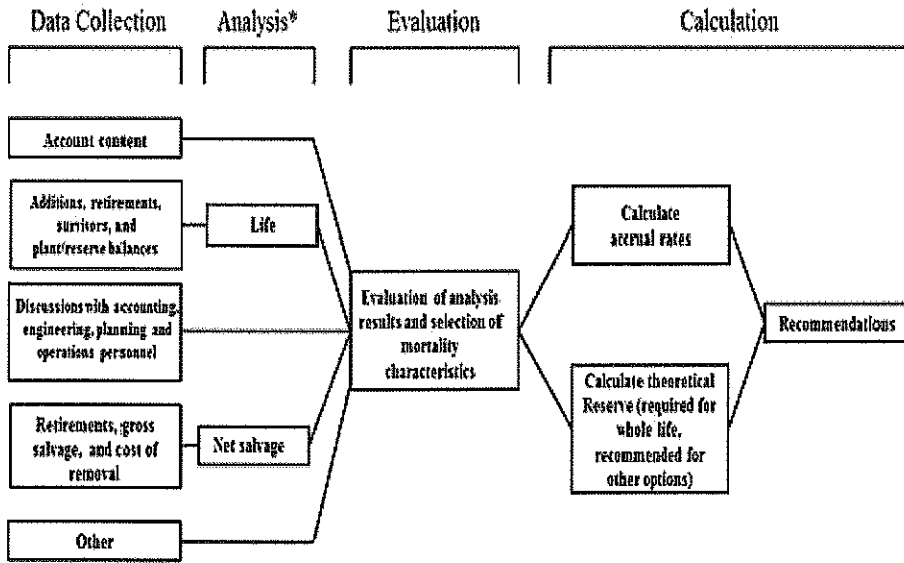
Phase 3 is the evaluation process which synthesizes analysis, interviews, and operational characteristics into a final selection of asset lives and net salvage parameters. The historical analysis from phase 2 is further enhanced by the incorporation of recent or future changes in the characteristics or operations of assets that were revealed in phase 1. Phases 2 and 3 allow the depreciation analyst to validate the asset characteristics as seen in the accounting transactions with actual Company operational experience.

Finally, Phase 4 involved the calculation of accrual rates, making recommendations and documenting the conclusions in a final report. The calculation of accrual rates is found in Appendix B. Recommendations for the various accounts are contained within the Detailed Discussion of this report. The depreciation study flow diagram shown as Figure 1<sup>1</sup> documents the steps used in conducting this study. Depreciation Systems, page 289 documents the same basic processes in performing a depreciation study which are: Statistical analyses, evaluation of statistical analysis, discussions with management, forecast assumptions, write logic supporting forecasts and estimation, and write final report.

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<sup>1</sup> Public Utility Finance & Accounting, A Reader

### Book Depreciation Study Flow Diagram



Source: Introduction to Depreciation for Public Utilities and Other Industries, AGA EEL, 2013.

\*Although not specifically noted, the mathematical analysis may need some level of input from other sources (for example, to determine analysis bands for life and adjustments to data used in all analysis).

Figure 1

## ATMOS COKS GENERAL OFFICE DEPRECIATION STUDY PROCESS



### **Depreciation Rate Calculation**

Annual depreciation expense amounts for the depreciable property accounts of COKS General Office were calculated by the straight line, equal life group, and remaining-life system. With this approach, remaining lives were calculated according to standard ELG group expectancy techniques, using the Iowa Survivor Curves noted in the calculation. For each plant account, the difference between the surviving investment, adjusted for estimated net salvage and the allocated book depreciation reserve, was divided by the average remaining life to yield the annual depreciation expense. These calculations are shown in Appendix B.

### **Remaining Life Calculation**

The establishment of appropriate average service lives and retirement dispersions for each account within a functional group was based on engineering judgment that incorporated available accounting information analyzed using the actuarial methods. After establishment of appropriate average service lives and retirement dispersions, remaining lives were computed for each account. The theoretical depreciation reserve with zero net salvage (used in calculating remaining life) was calculated using theoretical reserve ratios as defined in the theoretical reserve portion of the general discussion section. The difference between plant balance and theoretical reserve was then spread over the ELG depreciation accruals. After accumulating the ELG accruals across each vintage, the annual accrual was divided into the net balance to compute remaining life. Details of the theoretical reserve computations, ELG accruals, and remaining life are found by account within each division in the study workpapers.

### **Calculation Process**

Annual depreciation expense amounts for all accounts were calculated by the straight line, remaining life procedure.

In a whole life representation, the annual accrual rate is computed by the

following equation,

$$\text{Annual Accrual Rate} = \frac{(100\% - \text{Net Salvage Percent})}{\text{Average Service Life}}$$

Use of the remaining life depreciation system adds a self-correcting mechanism, which accounts for any differences between theoretical and book depreciation reserve over the remaining life of the group. With the straight line, remaining life, average life group system using lowa Curves, composite remaining lives were calculated according to standard broad group expectancy techniques, noted in the formula below:

$$\text{Composite Remaining Life} = \frac{\sum \text{Original Cost} - \text{Theoretical Reserve}}{\sum \text{Whole Life Annual Accrual}}$$

For each plant account, the difference between the surviving investment, adjusted for estimated net salvage, and the allocated book depreciation reserve, was divided by the composite remaining life to yield the annual depreciation expense as noted in this equation where the net salvage percent represents future net salvage.

$$\text{Annual Depreciation Expense} = \frac{\text{Original Cost} - \text{Book Reserve} - (\text{Original Cost}) * (1 - \text{Net Salvage \%})}{\text{Composite Remaining Life}}$$

Within a group, the sum of the group annual depreciation expense amounts, as a percentage of the depreciable original cost investment summed, gives the annual depreciation rate as shown below:

$$\text{Annual Depreciation Rate} = \frac{\sum \text{Annual Depreciation Expense}}{\sum \text{Original Cost}}$$

These calculations are shown in Appendix B. The calculations of the theoretical depreciation reserve values and the corresponding remaining life calculations are shown in workpapers. Book depreciation reserves were allocated to individual accounts and the theoretical reserve computation was used to compute a composite remaining life for each account.

## LIFE AND NET SALVAGE

The retirement rate actuarial analysis method was applied to all accounts for COKS General Office. For each account, an actuarial retirement rate analysis was made with placement and experience bands of varying width. The historical observed life table was plotted and compared with various Iowa Survivor Curves to obtain the most appropriate match. A selected curve for each account is shown in the Life Analysis Section of this report. The observed life tables for all analyzed placement and experience bands are provided in workpapers.

For the overall band (i.e. placement from earliest vintage year which varied for each account through 2014) for each account, various dispersion curves were plotted. Frequently, visual matching would confirm one specific dispersion pattern (i.e. L, S, or R) as a better match than others. The next step would be to determine the most appropriate life using that dispersion pattern. Then, after looking at the overall experience band, different experience bands were plotted and analyzed, for instance 2000-2014, 2005-2014, etc. Next placement bands of varying width were plotted with each experience band discussed above. Repeated matching usually pointed to a focus on one dispersion family and small range of service lives. The goal of visual matching was to minimize the differential between the observed life table and Iowa curve in top and mid-range of the plots. These results are used in conjunction with all other factors that may influence asset lives.

## NET SALVAGE CONSIDERATIONS

When a capital asset is retired, physically removed from service and finally disposed of, terminal retirement is said to have occurred. The residual value of a terminal retirement is called gross salvage. Net salvage is the difference between the gross salvage (what the asset was sold for) and the removal cost (cost to remove and dispose of the asset).

The net salvage analysis, for each account, is shown in Appendix D. Moving averages for intervals are also included in Appendix D. The assets of COKS General Office generally do not incur cost of removal and salvage has declined in over the years. In this study a 0 percent net salvage is recommended for each account.

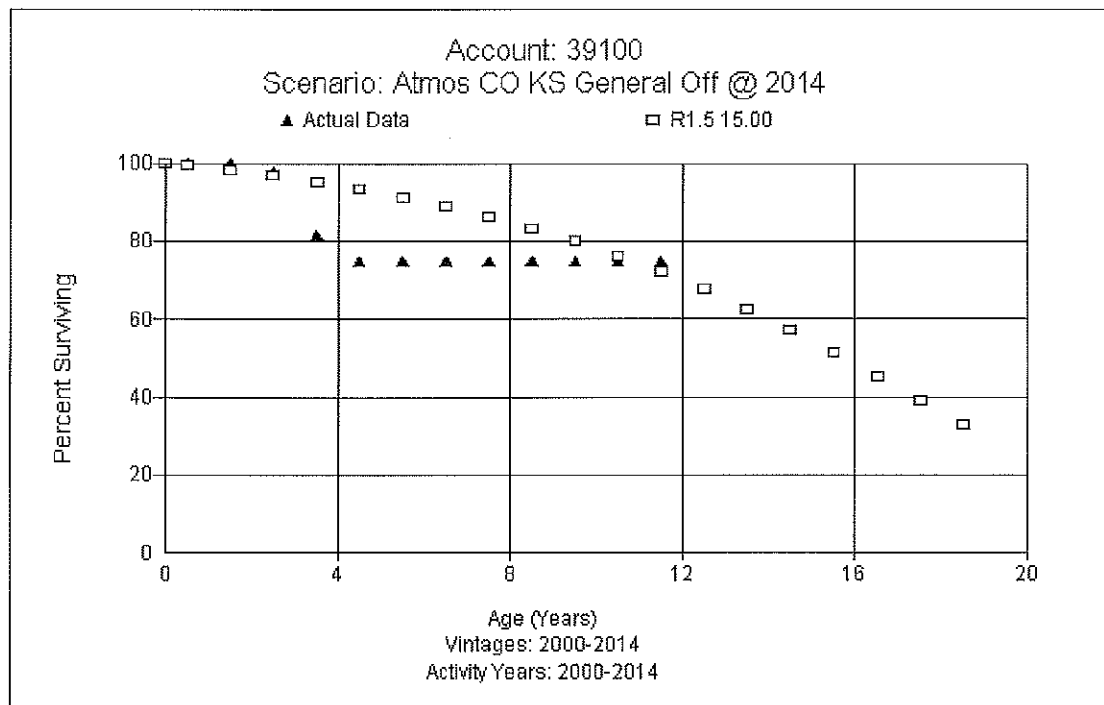
### Account Life and Net Salvage Analysis

#### **390.09 – Improvements to Leased Premises**

This account includes the cost of improvements to leased premises. The balance is \$190 thousand. The current life and curve are unknown but based on the existing 10% depreciation rate a 10 SQ is assumed. Assets in this account are tied to the lease term, which is 10 years. The current average age of investment is nearing 6 years. The 10 SQ dispersion pattern is recommended. No graph is provided. No salvage or removal cost is currently expected for these improvements, therefore a zero percent net salvage is recommended for this account.

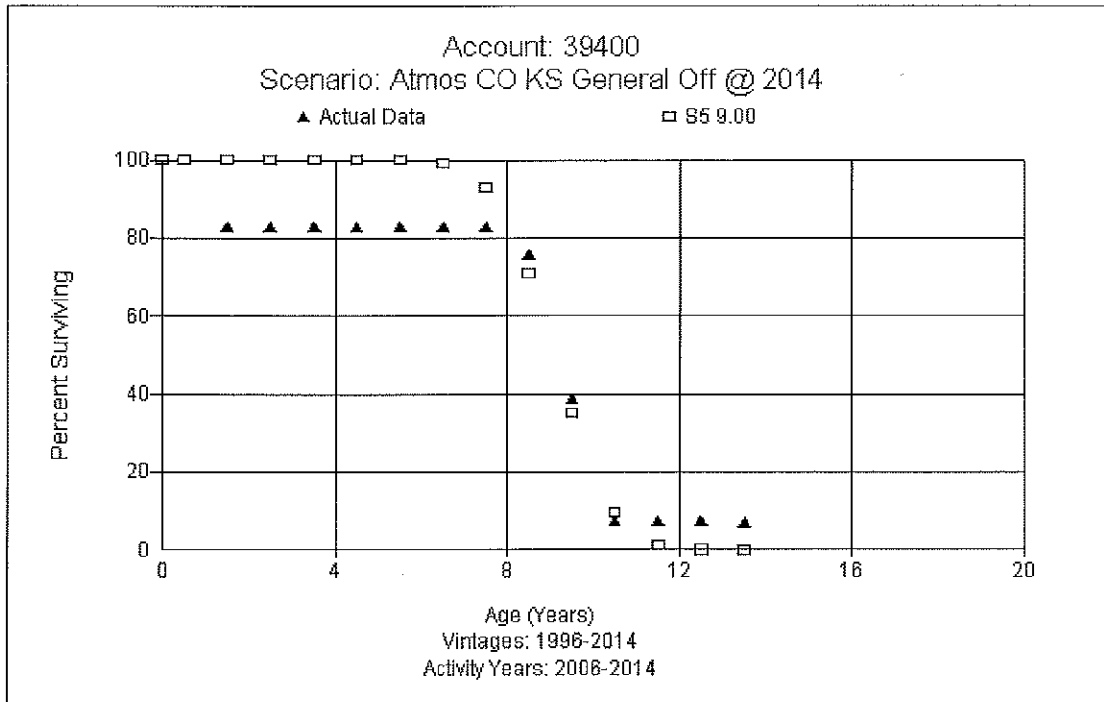
**391.00 & 391.03 – Office Furniture, Equipment & Office Machines**

These accounts consist of modular furniture, desks, chairs, bookcases, credenzas, file cabinets, office machines and other miscellaneous equipment. The balance is \$292 thousand. The current life and curve is 15 SQ. An expected life range for the assets in this account is 10 to 25 years. This study recommends retention of the 15 year life but moving to the R1.5 dispersion pattern. A graph of the observed life table and the recommended life and curve are shown below. There is no cost of removal and salvage has declined to a negligible level. A zero percent net salvage rate is recommended for this account.



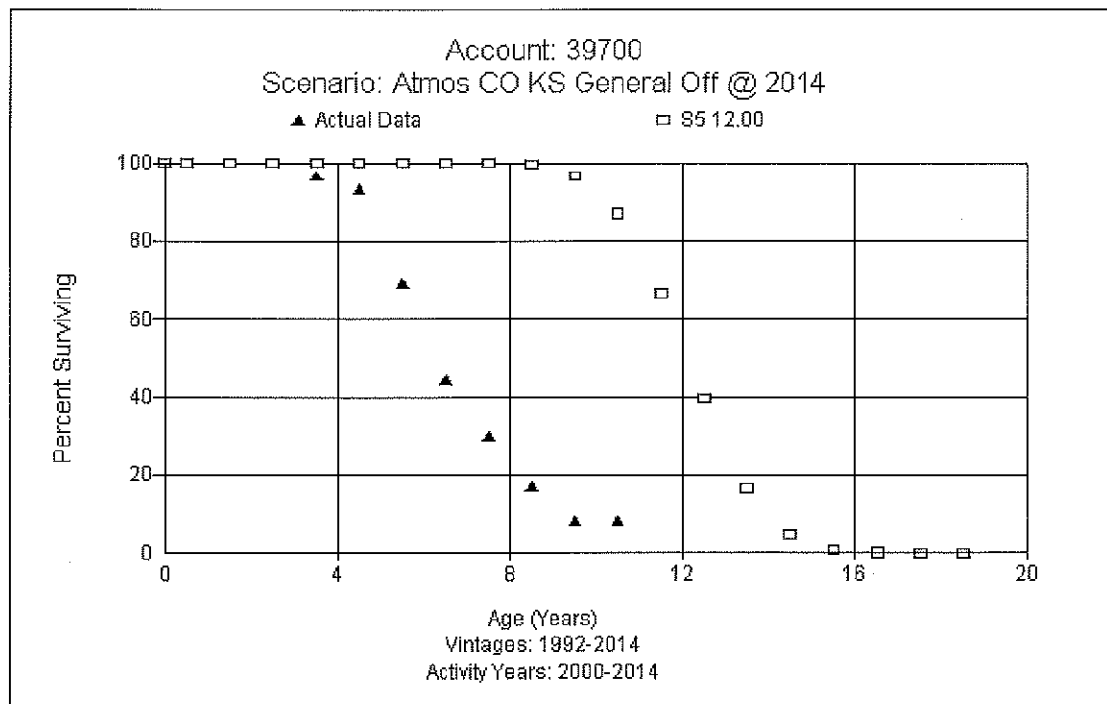
**394.00 – Tools, Shop & Garage Equipment**

This account consists of various small tools and equipment. The balance is \$70 thousand in this account. The existing dispersion is 10 SQ. This study recommends moving to a 9 year life with the S5 dispersion pattern. A graph of the observed life table and the recommended life and curve are shown below. This study recommends a zero percent net salvage rate for this account.



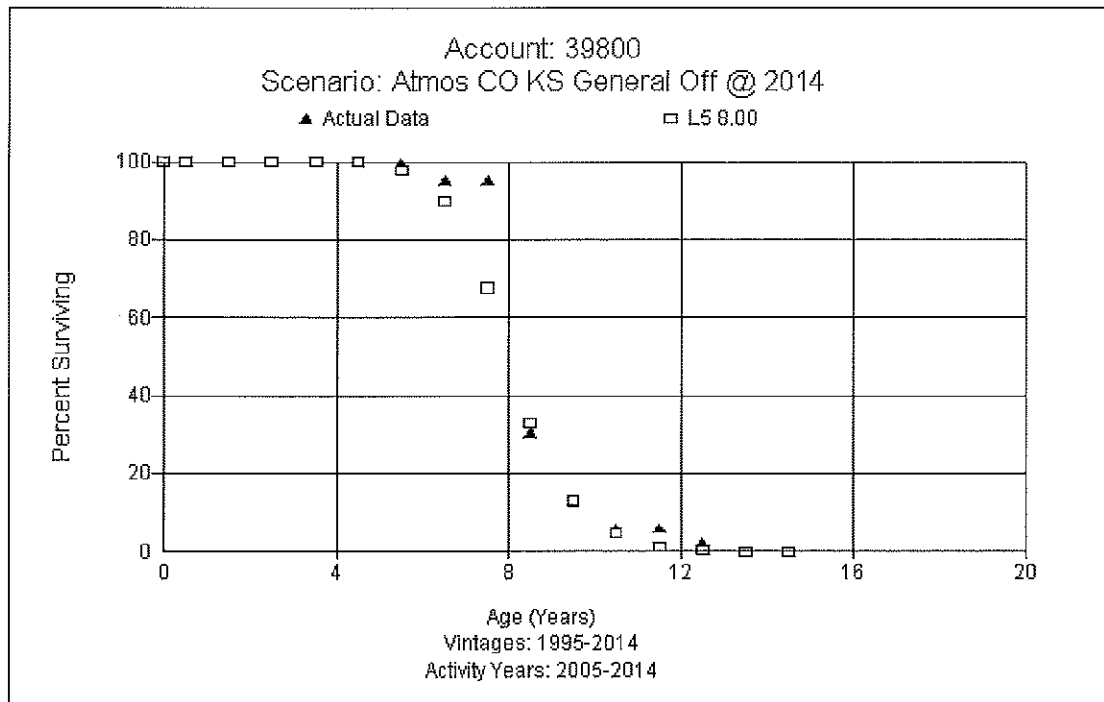
**397.00 – Communications Equipment**

The communications equipment account includes telephone, satellite dish, and radio equipment. The balance is \$173 thousand in this account. Assets in this account generally have a life range between 10 and 15 years. The current average age of investment is 7.18 years. The existing parameters are 12 S5. The analysis indicated a life around 6 years, which is much shorter than expected for these types of assets. Based on the average age of existing investment, the types of surviving assets, expectations for these assets and judgment, this study recommends retaining the existing 12 S5. A graph of the observed life table and the recommended life and curve are shown below. There has been no recent salvage and removal cost experience. This study recommends a zero percent net salvage rate for this account.



**Account 398.00 - Miscellaneous Equipment**

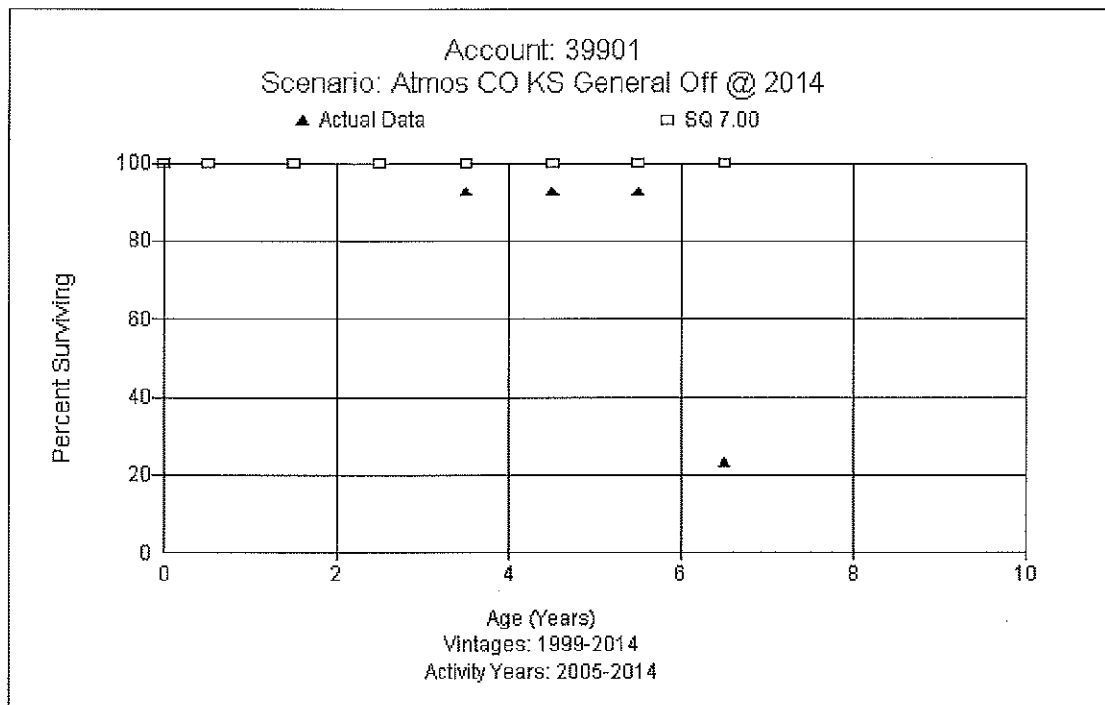
This account consists of various small office equipment items, such as kitchen appliances, televisions and audio/video equipment that are not homogeneous with other plant accounts. The balance is \$40 thousand. Currently the life is 10 years with the SQ dispersion. The current average age of investment is 5.10 years. Retirements of assets, as a group, in this account are demonstrating that an 8 year average service life with the L5 dispersion for assets in this account is appropriate. A graph of the observed life table and the recommended life and curve are shown below. This study recommends a zero percent net salvage rate for this account.





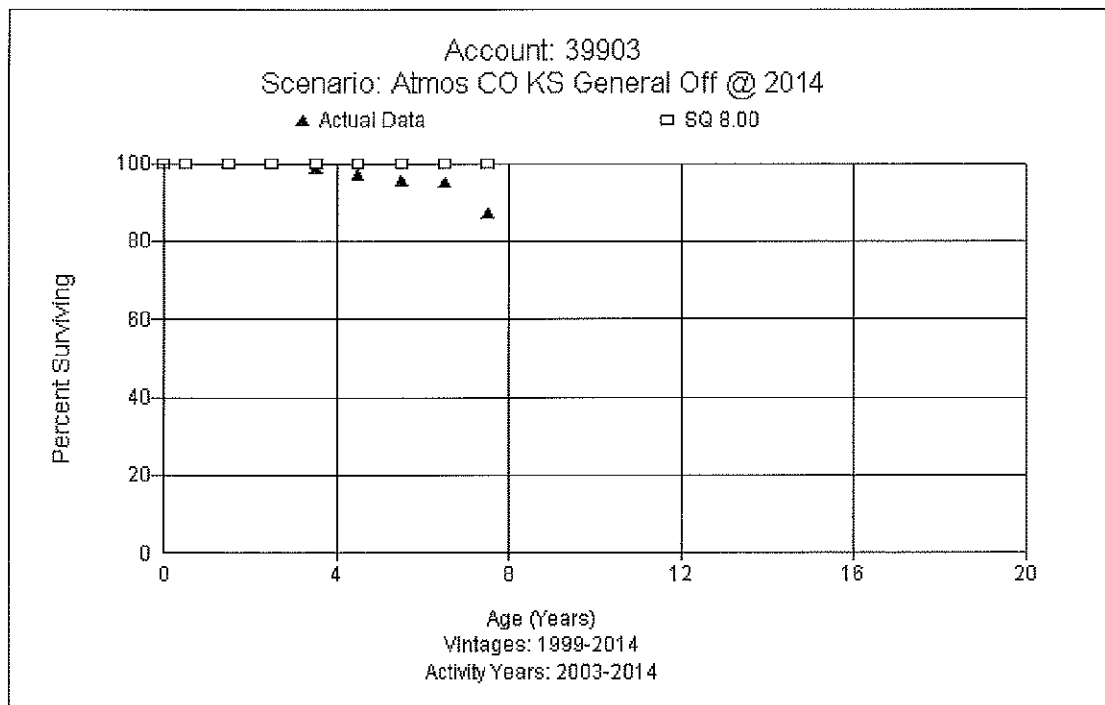
**Account 399.01 – Servers Hardware**

This account consists of assets various server hardware and equipment. The balance is \$351 thousand. The current life and curve is 7 SQ. This study recommends retention of the existing 7 SQ for this account. A graph of the observed life table and the recommended life and curve are shown below. No salvage or cost of removal is expected and a zero percent net salvage rate is recommended for this account.



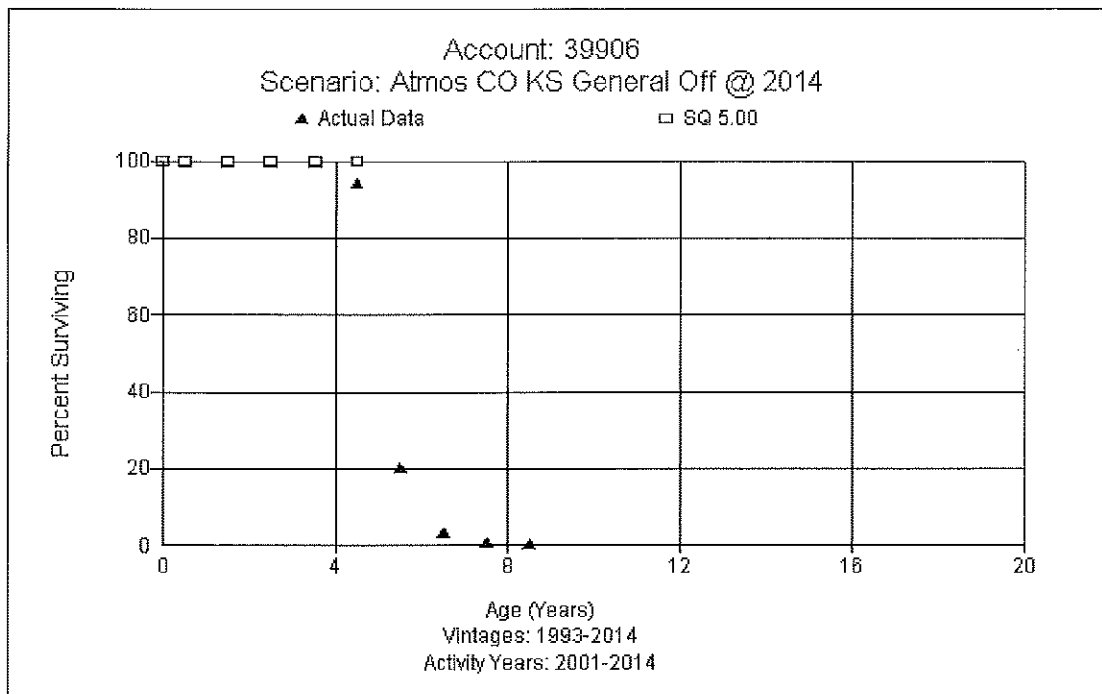
**Account 399.03 – Network Hardware**

This account consists of assets related to networking activities such as routers, switches and miscellaneous networking equipment. The balance is \$353 thousand. The current life is 7 SQ. The average age of the surviving balance is 6.08 years. The analysis indicates a life longer than existing. Based on discussions with Company personnel, the analysis indications, type of assets, and judgment, this study recommends moving to an 8 year average service life with the SQ dispersion. No graph is provided. No salvage or cost of removal is expected and a zero percent net salvage rate is recommended for this account.



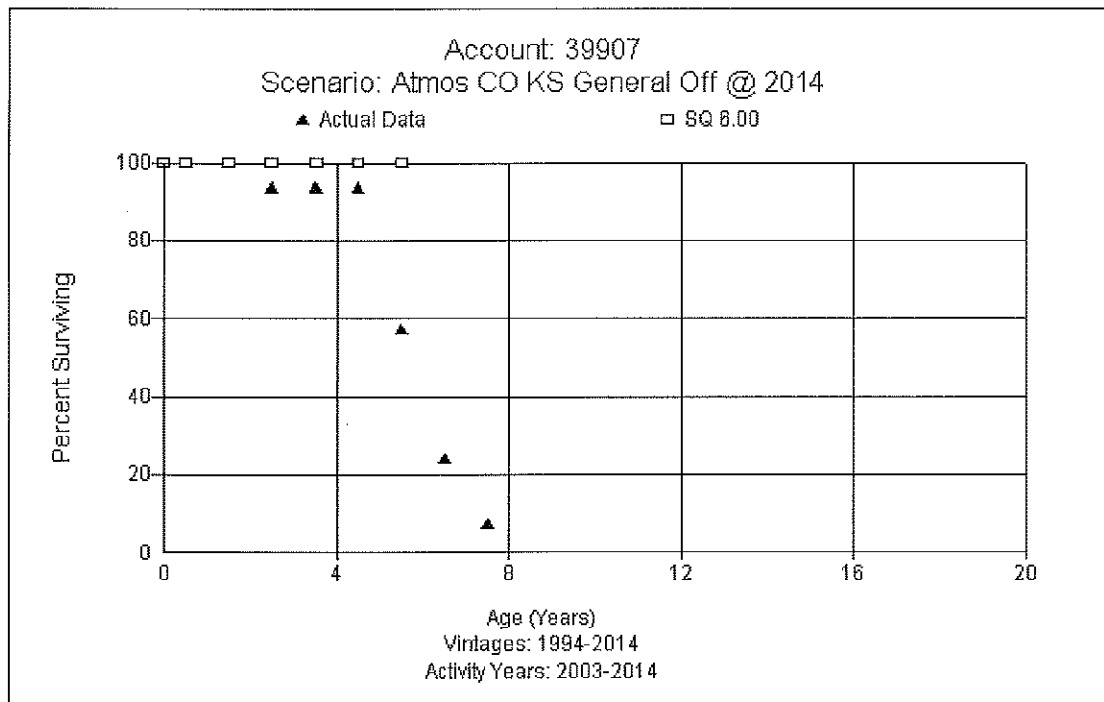
**Account 399.06 – PC Hardware**

This account consists of costs for computer hardware, desktop and laptop computers, monitors and printers. The balance is \$37 thousand. The existing life is 5 years with the SQ dispersion. Discussions with Company personnel indicated a refresh rate of approximately 4 years for computers. The analysis indicates a life around 5 years. Based on the discussions with Company personnel, analysis indications and judgment, this study recommends retention of the 5 SQ. A graph of the observed life table and the recommended life and curve are shown below. This study recommends a zero percent net salvage rate for this account.



**Account 399.07 – PC Software**

The PC software account holds booked investment and retirement activity for software assets including operating system software such as Windows, Microsoft Office, and other related application software. The balance is \$106 thousand. The existing life is 5 years with the SQ dispersion. Discussions with Company personnel indicated that software generally follows the hardware, but may be retained for a slightly longer period. The analysis supports the discussion with the Company with a 6 year life seen across the bands. This study recommends moving to a 6 year average service life with the SQ dispersion. This study recommends a zero percent net salvage rate for this account.



**APPENDIX A**

**Comparison of Annual Rate and Accrual**

## Appendix A

**Atmos Energy - Colorado Kansas General Office**  
**At September 30, 2014**  
**Depreciation Study Annual Depreciation Rates and Accruals**

| Account | Description                             | Plant Balance          | Existing      |                      | Proposed      |                      | Change in Depreciation Expense |
|---------|---|------------------------|---------------|----------------------|---------------|----------------------|--------------------------------|
|         |   |                        | Accrual Rate  | Accrual Amount       | Accrual Rate  | Accrual Amount       |                                |
| (a)     | (b)                                     | (c)                    | (d)           | (e)                  | (f)           | (g)                  | (h)                            |
| 39009   | Improvements to Leased Premises         | \$ 189,717.07          | 10.00%        | \$ 18,971.71         | 12.07%        | \$ 22,889.87         | \$ 3,918.16                    |
| 39100   | Office Furniture and Equipment          | 291,889.14             | 8.44%         | 24,635.44            | 7.80%         | 22,754.13            | (1,881.31)                     |
| 39103   | Office Machines                         | -                      | 8.44%         | -                    | 7.80%         | -                    |                                |
| 39400   | Tools, Shop and Garage Equipment        | 68,987.80              | 16.57%        | 11,431.28            | 16.39%        | 11,304.24            | (127.04)                       |
| 39700   | Communication Equipment                 | 173,109.02             | 8.45%         | 14,627.71            | 10.67%        | 18,462.11            | 3,834.40                       |
| 39800   | Miscellaneous Equipment                 | 40,342.60              | 15.46%        | 6,236.97             | 16.74%        | 6,753.99             | 517.02                         |
| 39901   | Servers Hardware                        | 350,765.66             | 21.81%        | 76,501.99            | 21.70%        | 76,128.78            | (373.21)                       |
| 39903   | Network Hardware                        | 352,704.53             | 15.55%        | 54,845.55            | 19.19%        | 67,671.83            | 12,826.28                      |
| 39906   | PC Hardware                             | 36,688.97              | 25.25%        | 9,263.96             | 22.00%        | 8,070.05             | (1,193.91)                     |
| 39907   | PC Software                             | 106,110.60             | 25.70%        | 27,270.42            | 20.00%        | 21,226.72            | (6,043.70)                     |
|         | <b>Total Depreciable Plant in Study</b> | <b>\$ 1,610,315.39</b> | <b>15.14%</b> | <b>\$ 243,785.04</b> | <b>15.85%</b> | <b>\$ 255,261.72</b> | <b>\$ 11,476.68</b>            |
| 39200   | Transportation Equipment                | -                      | 20.00%        | -                    | 20.00%        | -                    |                                |
| 39500   | Laboratory Equipment                    | -                      | 10.00%        | -                    | 10.00%        | -                    |                                |
| 39902   | Servers Software                        | -                      | 14.29%        | -                    | 14.29%        | -                    |                                |
| 39905   | Mainframe                               | -                      | 20.00%        | -                    | 20.00%        | -                    |                                |

**APPENDIX B**  
**Annual Accrual Rate Calculations**

## Appendix B

Atmos Energy - Colorado Kansas General Office  
At September 30, 2014  
Calculation of Depreciation Accrual Remaining Life  
With Reserve Reallocation

| Account | Description                     | Plant Balance          | Allocated Book Reserve | Net Salvage % | Net Salvage Amount | Unaccrued Balance    | Remaining Life | Annual               |               |
|---------|---------------------------------|------------------------|------------------------|---------------|--------------------|----------------------|----------------|----------------------|---------------|
|         |                                 |                        |                        |               |                    |                      |                | Accrual Amount       | Accrual Rate  |
| (a)     | (b)                             | (c)                    | (d)                    | (e)           | (f)                | (g)                  | (h)            | (i)                  | (j)           |
| 39009   | Improvements to Leased Premise: | \$ 189,717.07          | \$ 86,712.66           | 0%            | \$ -               | \$ 103,004.41        | 4.50           | \$ 22,889.87         | 12.07%        |
| 39100   | Office Furniture and Equipmen   | 291,889.14             | 94,756.39              | 0%            | -                  | 197,132.75           | 8.66           | 22,754.13            | 7.80%         |
| 39103   | Office Machines                 | -                      | -                      | 0%            | -                  | -                    | 0.00           | -                    | 7.80%         |
| 39400   | Tools, Shop and Garage Equipmer | 68,987.80              | 41,879.83              | 0%            | -                  | 27,107.97            | 2.40           | 11,304.24            | 16.39%        |
| 39700   | Communication Equipmen          | 173,109.02             | 87,360.53              | 0%            | -                  | 85,748.49            | 4.64           | 18,462.11            | 10.67%        |
| 39800   | Miscellaneous Equipmen          | 40,342.60              | 21,778.15              | 0%            | -                  | 18,564.45            | 2.75           | 6,753.99             | 16.74%        |
| 39901   | Servers Hardware                | 350,765.66             | 219,925.79             | 0%            | -                  | 130,839.87           | 1.72           | 76,128.78            | 21.70%        |
| 39903   | Network Hardware                | 352,704.53             | 222,743.69             | 0%            | -                  | 129,960.84           | 1.92           | 67,671.83            | 19.19%        |
| 39906   | PC Hardware                     | 36,688.97              | 11,320.57              | 0%            | -                  | 25,368.40            | 3.14           | 8,070.05             | 22.00%        |
| 39907   | PC Software                     | 106,110.60             | 47,825.79              | 0%            | -                  | 58,284.81            | 2.75           | 21,226.72            | 20.00%        |
|         | <b>Total Depreciable Plant</b>  | <b>\$ 1,610,315.39</b> | <b>\$ 834,303.40</b>   |               | <b>\$ -</b>        | <b>\$ 776,011.99</b> |                | <b>\$ 255,261.72</b> | <b>15.85%</b> |
| 39200   | Transportation Equipmen         | -                      | -                      | 0%            | -                  | -                    | -              | -                    | 20.00%        |
| 39500   | Laboratory Equipmen             | -                      | -                      | 0%            | -                  | -                    | -              | -                    | 10.00%        |
| 39902   | Servers Software                | -                      | -                      | 0%            | -                  | -                    | -              | -                    | 15.55%        |
| 39905   | Mainframe                       | -                      | -                      | 0%            | -                  | -                    | -              | -                    | 20.00%        |



**APPENDIX C**  
**Comparison of Mortality Characteristics**

## Appendix C

**Atmos Energy Corporation**  
**Colorado Kansas General Office Property**  
**Comparison of Existing and Proposed Mortality Characteristics**

| Accounts             | Account Description              | EXISTING |            |               |                 |             | PROPOSED |            |               |                 |             |
|----------------------|----------------------------------|----------|------------|---------------|-----------------|-------------|----------|------------|---------------|-----------------|-------------|
|                      |                                  | ASL      | lowa Curve | Gross Salvage | Cost of Removal | Net Salvage | ASL      | lowa Curve | Gross Salvage | Cost of Removal | Net Salvage |
| <b>GENERAL PLANT</b> |                                  |          |            |               |                 |             |          |            |               |                 |             |
| 39009                | Improvements to Leased Premises  | UNKNOWN  |            | 0%            | 0%              | 0%          | 10       | SQ         | 0%            | 0%              | 0%          |
| 39100                | Office Furniture and Equipment   | 15       | SQ         | 0%            | 0%              | 0%          | 15       | R1.5       | 0%            | 0%              | 0%          |
| 39103                | Office Machines                  | 15       | SQ         | 0%            | 0%              | 0%          | 15       | R1.5       | 0%            | 0%              | 0%          |
| 39400                | Tools, Shop and Garage Equipment | 10       | SQ         | 0%            | 0%              | 0%          | 9        | S5         | 0%            | 0%              | 0%          |
| 39700                | Communication Equipment          | 12       | S5         | 0%            | 0%              | 0%          | 12       | S5         | 0%            | 0%              | 0%          |
| 39800                | Miscellaneous Equipment          | 10       | SQ         | 0%            | 0%              | 0%          | 8        | L5         | 0%            | 0%              | 0%          |
| 39901                | Servers Hardware                 | 7        | SQ         | 0%            | 0%              | 0%          | 7        | SQ         | 0%            | 0%              | 0%          |
| 39903                | Network Hardware                 | 7        | SQ         | 0%            | 0%              | 0%          | 8        | SQ         | 0%            | 0%              | 0%          |
| 39906                | PC Hardware                      | 5        | SQ         | 0%            | 0%              | 0%          | 5        | SQ         | 0%            | 0%              | 0%          |
| 39907                | PC Software                      | 5        | SQ         | 0%            | 0%              | 0%          | 6        | SQ         | 0%            | 0%              | 0%          |

**APPENDIX D**  
**Net Salvage Analysis**

**Atmos Colorado Kansas General Office  
Retirements, Gross Salvage, and Cost of Removal  
As of September 30, 2014**

| Account | Transaction Year | Retirements | Gross Salvage | Cost of Removal | Net Salvage | Net Salv. % | 2-yr Net Salv. % | 3-yr Net Salv. % | 4-yr Net Salv. % | 5-yr Net Salv. % | 6-yr Net Salv. % | 7-yr Net Salv. % | 8-yr Net Salv. % | 9-yr Net Salv. % | 10-yr Net Salv. % |
|---------|------------------|-------------|---------------|-----------------|-------------|-------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| 39100   | 2000             | 331,706.00  | 0.00          | 0.00            | 0.00        | 0.00%       |                  |                  |                  |                  |                  |                  |                  |                  |                   |
| 39100   | 2001             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | 0.00%            |                  |                  |                  |                  |                  |                  |                  |                   |
| 39100   | 2002             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | 0.00%            |                  |                  |                  |                  |                  |                  |                   |
| 39100   | 2003             | 18,738.00   | 0.00          | 0.00            | 0.00        | 0.00%       | 0.00%            | 0.00%            | 0.00%            |                  |                  |                  |                  |                  |                   |
| 39100   | 2004             | 2,035.00    | 0.00          | 0.00            | 0.00        | 0.00%       | 0.00%            | 0.00%            | 0.00%            | 0.00%            |                  |                  |                  |                  |                   |
| 39100   | 2005             | 135,792.18  | 0.00          | 0.00            | 0.00        | 0.00%       | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            |                  |                  |                  |                   |
| 39100   | 2006             | 50,506.85   | 0.00          | 0.00            | 0.00        | 0.00%       | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            |                  |                  |                   |
| 39100   | 2007             |             | 0.00          | 0.00            | 0.00        | NA          | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            |                  |                   |
| 39100   | 2008             | 106,286.92  | 0.00          | 0.00            | 0.00        | 0.00%       | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            |                   |
| 39100   | 2009             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39100   | 2010             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39100   | 2011             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | NA               | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39100   | 2012             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | NA               | NA               | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39100   | 2013             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | NA               | NA               | NA               | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39100   | 2014             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | NA               | NA               | NA               | NA               | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39400   | 2000             | 0.00        | 0.00          | 0.00            | 0.00        | NA          |                  |                  |                  |                  |                  |                  |                  |                  |                   |
| 39400   | 2001             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               |                  |                  |                  |                  |                  |                  |                  |                   |
| 39400   | 2002             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | NA               |                  |                  |                  |                  |                  |                  |                   |
| 39400   | 2003             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | NA               | NA               |                  |                  |                  |                  |                  |                   |
| 39400   | 2004             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | NA               | NA               | NA               |                  |                  |                  |                  |                   |
| 39400   | 2005             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | NA               | NA               | NA               | NA               |                  |                  |                  |                   |
| 39400   | 2006             | 14,990.00   | 0.00          | 0.00            | 0.00        | 0.00%       | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            |                  |                  |                   |
| 39400   | 2007             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            |                  |                   |
| 39400   | 2008             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            |                   |
| 39400   | 2009             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | NA               | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39400   | 2010             | 20,541.18   | 0.00          | 0.00            | 0.00        | 0.00%       | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39400   | 2011             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39400   | 2012             | 186,619.95  | 0.00          | 0.00            | 0.00        | 0.00%       | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39400   | 2013             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39400   | 2014             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39700   | 2000             | 14,051.00   | 0.00          | 0.00            | 0.00        | 0.00%       |                  |                  |                  |                  |                  |                  |                  |                  |                   |
| 39700   | 2001             | 2,136.00    | 0.00          | 0.00            | 0.00        | 0.00%       | 0.00%            |                  |                  |                  |                  |                  |                  |                  |                   |
| 39700   | 2002             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | 0.00%            | 0.00%            |                  |                  |                  |                  |                  |                  |                   |
| 39700   | 2003             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | 0.00%            | 0.00%            |                  |                  |                  |                  |                  |                   |
| 39700   | 2004             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | NA               | NA               | 0.00%            | 0.00%            |                  |                  |                  |                  |                   |
| 39700   | 2005             | 75,676.57   | 0.00          | 0.00            | 0.00        | 0.00%       | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            |                  |                  |                  |                   |
| 39700   | 2006             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            |                  |                  |                   |
| 39700   | 2007             | 391,995.10  | 0.00          | 0.00            | 0.00        | 0.00%       | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            |                  |                   |
| 39700   | 2008             | 0.00        | 0.00          | 1,209.31        | (1,209.31)  | NA          | -0.31%           | -0.31%           | -0.26%           | -0.26%           | -0.26%           | -0.26%           | -0.26%           | -0.25%           |                   |
| 39700   | 2009             | 248,391.68  | 0.00          | 0.00            | 0.00        | 0.00%       | -0.49%           | -0.19%           | -0.19%           | -0.17%           | -0.17%           | -0.17%           | -0.17%           | -0.17%           | -0.17%            |
| 39700   | 2010             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | 0.00%            | -0.49%           | -0.19%           | -0.19%           | -0.17%           | -0.17%           | -0.17%           | -0.17%           | -0.17%            |
| 39700   | 2011             | 16,713.09   | 0.00          | 0.00            | 0.00        | 0.00%       | 0.00%            | 0.00%            | -0.46%           | -0.18%           | -0.18%           | -0.17%           | -0.17%           | -0.17%           | -0.17%            |
| 39700   | 2012             | 41,498.30   | 0.00          | 0.00            | 0.00        | 0.00%       | 0.00%            | 0.00%            | 0.00%            | -0.39%           | -0.17%           | -0.17%           | -0.16%           | -0.16%           | -0.16%            |
| 39700   | 2013             | 0.00        | 0.00          | 0.00            | 0.00        | NA          | 0.00%            | 0.00%            | 0.00%            | 0.00%            | -0.39%           | -0.17%           | -0.17%           | -0.16%           | -0.16%            |
| 39700   | 2014             | 11,585.87   | 0.00          | 0.00            | 0.00        | 0.00%       | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%            | -0.38%           | -0.17%           | -0.17%           | -0.15%            |





**ATMOS ENERGY CORPORATION  
SHARED SERVICES UNIT**

**DEPRECIATION RATE STUDY**

**As of September 30, 2014**



<http://www.utilityalliance.com>

**ATMOS ENERGY CORPORATION - SHARED SERVICES UNIT  
DEPRECIATION RATE STUDY  
EXECUTIVE SUMMARY**

Atmos Energy Corporation (“Atmos” or “Company”) engaged Alliance Consulting Group to conduct a depreciation study of the Company’s Shared Services Unit (“SSU” or “Shared Services”) operations depreciable assets as of fiscal year end September 30, 2014. SSU provides support to Atmos Energy Corporation’s regulated utility divisions.

The regulated natural gas utility divisions during the year ended September 30, 2014 were:

- Atmos Colorado-Kansas Division
- Atmos Louisiana Division
- Atmos Kentucky Mid-States (Kentucky, Tennessee, and Virginia) Division
- Atmos Mississippi Division
- Atmos Mid-Tex Division
- Atmos West Texas Division
- Atmos Pipeline Texas Division

The depreciation rates are based on the straight-line method, equal life group (“ELG”) procedure, and remaining-life technique. This study results in an annual depreciation expense accrual of \$21.7 million when applied to depreciable plant balances as of September 30, 2014.

The depreciation study we conducted analyzed and developed depreciation recommendations at an account level. The resulting annual depreciation accrual amounts and depreciation rates contained in this study are at the account level. The Company will accrue depreciation expense based on the account level depreciation rates developed in this study. Appendix A demonstrates the annual depreciation expense.



**ATMOS ENERGY CORPORATION**  
**ATMOS SHARED SERVICES UNIT**  
**DEPRECIATION RATE STUDY**  
**As of September 30, 2014**  
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## **PURPOSE**

The purpose of this study is to develop depreciation rates for the depreciable property as recorded on Shared Services' books at September 30, 2014. The account based depreciation rates were designed to recover the total remaining undepreciated investment, adjusted for net salvage, over the remaining life of Shared Services' property on a straight-line basis. Non-depreciable property and property which is amortized, such as intangibles were excluded from this study.

Shared Services is a division of Atmos Corporation dedicated to providing various support services to its operating companies. As of the study date, Shared Services supported regulated gas utility divisions operating in eight different states.

## STUDY RESULTS

The existing and current study annual depreciation expense results from the use of Iowa Curve dispersion patterns with average service life, the equal life group ("ELG") procedure and remaining-life technique, and consideration of net salvage in the development of the study recommended depreciation rates. Detailed information for each of these factors will follow in this report.

Overall depreciation rates for Shared Services depreciable property are shown in Appendix A. These rates translate into an annual depreciation accrual of \$21.7 million based on Shared Services' depreciable investment at September 30, 2014.

Appendix A presents the recommended study annual accrual rates and amounts. Appendix B presents the development of the depreciation rates and annual accruals. Appendix C presents the recommended study mortality and net salvage parameters by account. Appendix D shows net salvage history by plant account.

## GENERAL DISCUSSION

### Definition

The term "depreciation" as used in this study is considered in the accounting sense, that is, a system of accounting that distributes the cost of assets, less net salvage (if any), over the estimated useful life of the assets in a systematic and rational manner. It is a process of allocation, not valuation. This expense is systematically allocated to accounting periods over the life of the properties. The amount allocated to any one accounting period does not necessarily represent the loss or decrease in value that will occur during that particular period. The Company accrues depreciation on the basis of the original cost of all depreciable property included in each functional property group. On retirement the full cost of depreciable property, less the net salvage value, is charged to the depreciation reserve.

### Basis of Depreciation Estimates

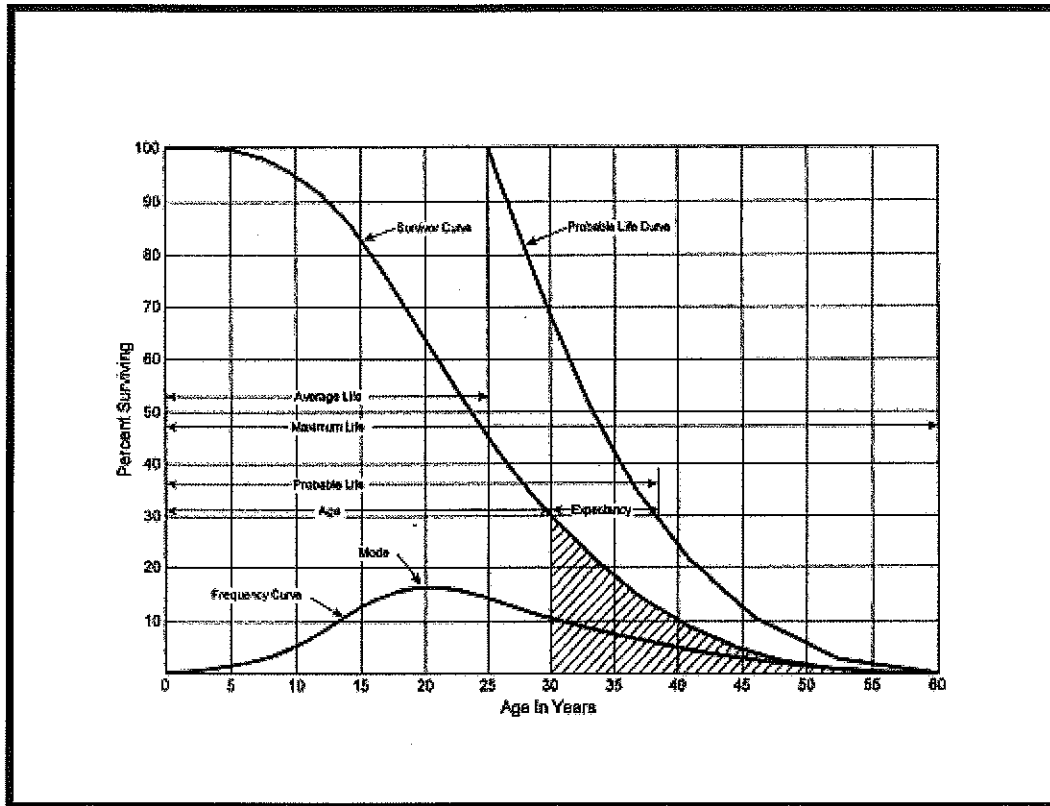
The straight-line, equal life group ("ELG"), remaining-life depreciation system was employed to calculate annual and accrued depreciation in this study. In this system, the annual depreciation expense for each group is computed by dividing the original cost of the asset less allocated depreciation reserve less estimated net salvage by its respective equal life group remaining life. The resulting annual accrual amounts of all depreciable property within a function were accumulated, and the total was divided by the original cost of all functional depreciable property to determine the depreciation rate. The calculated remaining lives and annual depreciation accrual rates were based on attained ages of plant in service and the estimated service life and salvage characteristics of each depreciable group. The computations of the annual depreciation rates are shown in Appendix B and remaining life calculations are provided in the workpapers.

Actuarial analysis was used with each account within a function where

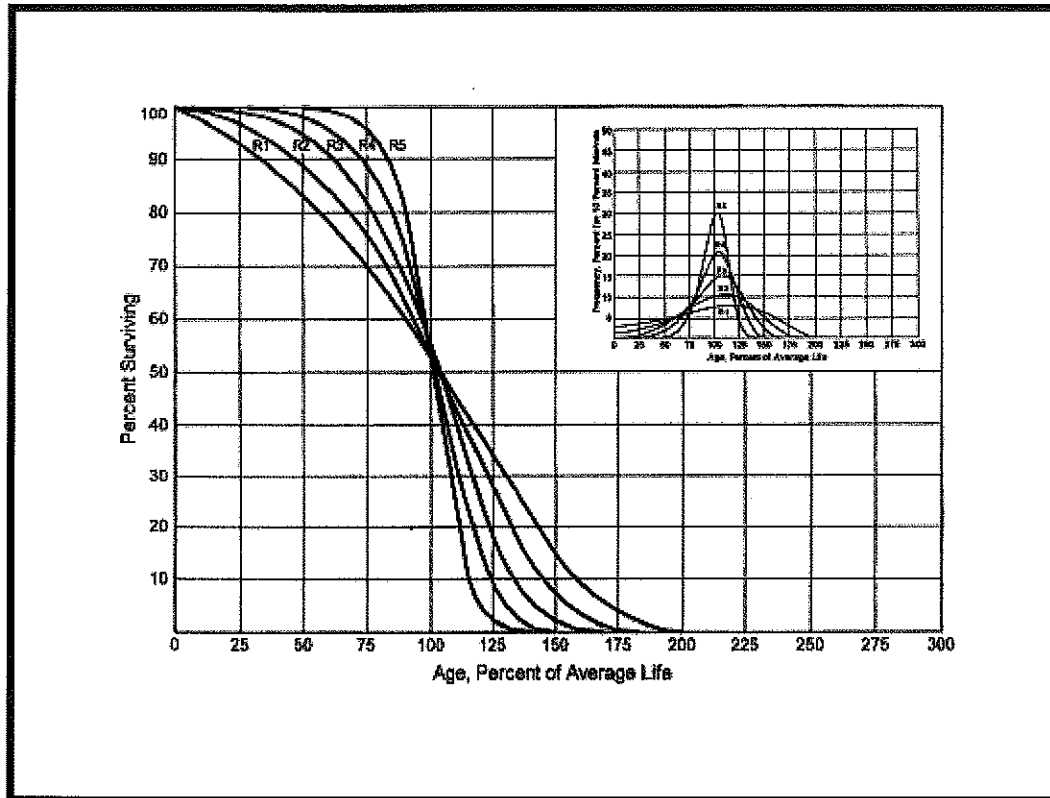
sufficient data was available, and judgment was used to some degree on all accounts.

### **Survivor Curves**

To fully understand depreciation projections in a regulated utility setting, there must be a basic understanding of survivor curves. Individual property units within a group do not normally have identical lives or investment amounts. The average life of a group can be determined by first constructing a survivor curve which is plotted as a percentage of the units surviving at each age. A survivor curve represents the percentage of property remaining in service at various age intervals. The Iowa Curves are the result of an extensive investigation of life characteristics of physical property made at Iowa State College Engineering Experiment Station in the first half of the prior century. Through common usage, revalidation and regulatory acceptance, these curves have become a descriptive standard for the life characteristics of industrial property. An example of an Iowa Curve is shown below.



There are four families in the Iowa Curves that are distinguished by the relation of the age at the retirement mode (largest annual retirement frequency) and the average life. For distributions with the mode age greater than the average life, an "R" designation (i.e., Right modal) is used. The family of "R" moded curves is shown below.



Similarly, an "S" designation (i.e., Symmetric modal) is used for the family whose mode age is symmetric about the average life. An "L" designation (i.e., Left modal) is used for the family whose mode age is less than the average life. A special case of left modal dispersion is the "O" or origin modal curve family. Within each curve family, numerical designations are used to describe the relative magnitude of the retirement frequencies at the mode. A "6" indicates that the retirements are not greatly dispersed from the mode (i.e., high mode frequency) while a "1" indicates a large dispersion about the mode (i.e., low mode frequency). For example, a curve with an average life of 30 years and an "L3" dispersion is a moderately dispersed, left modal curve that can be designated as a 30 L3 Curve. An SQ, or square, survivor curve occurs where no dispersion is present (i.e., units of common age retire simultaneously).

Most property groups can be closely fitted to one Iowa Curve with a unique average service life. The blending of judgment concerning current conditions and

future trends along with the matching of historical data permits the depreciation analyst to make an informed selection of an account's average life and retirement dispersion pattern.

### **Actuarial Analysis**

Actuarial analysis (retirement rate method) was used in evaluating historical asset retirement experience where vintage data were available and sufficient retirement activity was present. In actuarial analysis, interval exposures (total property subject to retirement at the beginning of the age interval, regardless of vintage) and age interval retirements are calculated. The complement of the ratio of interval retirements to interval exposures establishes a survivor ratio. The survivor ratio is the fraction of property surviving to the end of the selected age interval, given that it has survived to the beginning of that age interval. Survivor ratios for all of the available age intervals were chained by successive multiplications to establish a series of survivor factors, collectively known as an observed life table. The observed life table shows the experienced mortality characteristic of the account and may be compared to standard mortality curves such as the Iowa Curves. Where data was available, accounts were analyzed using this method. Placement bands were used to illustrate the composite history over a specific era, and experience bands were used to focus on retirement history for all vintages during a set period. The results from these analyses for those accounts which had data sufficient to be analyzed using this method are shown in the Life Analysis section of this report.



## Judgment

Any depreciation study requires informed judgment by the analyst conducting the study. A knowledge of the property being studied, company policies and procedures, general trends in technology and industry practice, and a sound basis of understanding depreciation theory are needed to apply this informed judgment. Judgment was used in areas such as survivor curve modeling and selection, depreciation method selection, simulated plant record method analysis, and actuarial analysis.

Judgment is not defined as being used in cases where there are specific, significant pieces of information that influence the choice of a life or curve. Those cases would simply be a reflection of specific facts into the analysis. Where there are multiple factors, activities, actions, property characteristics, statistical inconsistencies, implications of applying certain curves, property mix in accounts or a multitude of other considerations that impact the analysis (potentially in various directions), judgment is used to take all of these factors and synthesize them into a general direction or understanding of the characteristics of the property. Individually, no one factor in these cases may have a substantial impact on the analysis, but overall, may shed light on the utilization and characteristics of assets. Judgment may also be defined as deduction, inference, wisdom, common sense, or the ability to make sensible decisions. There is no single correct result from statistical analysis; hence, there is no answer absent judgment. At the very least for example, any analysis requires choosing which bands to place more emphasis.

The establishment of appropriate average service lives and retirement dispersions for Shared Services' accounts requires judgment to incorporate the understanding of the operation of the system with the available accounting information analyzed using the Retirement Rate actuarial methods. The appropriateness of lives and curves depends not only on statistical analyses, but also on how well future retirement patterns will match past retirements.

Current applications and trends in use of the equipment also need to be factored into life and survivor curve choices in order for appropriate mortality characteristics to be chosen.

### **Equal Life Group Depreciation**

Atmos agreed that the continued use of the ELG depreciation procedure was appropriate. This study uses the ELG depreciation procedure to group the assets within each account. After an average service life and dispersion were selected for each account, those parameters were used to estimate what portion of the surviving investment of each vintage was expected to retire. The depreciation of the group continues until all investment in the vintage group is retired. ELG groups are defined by their respective account dispersion, life, and net salvage estimates. A straight-line rate for each ELG group is computed and accumulated across each vintage. The resulting rate for each ELG group is designed to recover all retirements less net salvage as each vintage retires. The ELG procedure recovers net book cost over the life of each ELG group rather than averaging many components. It also closely matches the concept of component or item accounting found in all accounting textbooks.

### **Theoretical Depreciation Reserve**

The Company's book depreciation reserves were reallocated based on the theoretical reserves for each account. This study used a reserve model that relied on a prospective concept relating future retirement and accrual patterns for property, given current life and salvage estimates. The theoretical reserve of a group is developed from the estimated remaining life, total life of the property group, and estimated net salvage. The theoretical reserve represents the portion of the group cost that would have been accrued if current forecasts were used throughout the life of the group for future depreciation accruals. The computation involves multiplying the vintage balances within the group by the theoretical reserve ratio for each

vintage. The equal life group method requires an estimate of dispersion and service life to establish how much of each vintage is expected to be retired in each year until all property within the vintage is retired. Estimated average service lives and dispersion determine the amount within each equal life group. The equal life group-remaining-life theoretical reserve ratio (RRELG) is calculated as:

$$RRELG = 1 - \frac{(ELG \text{ Remaining Life})}{(ELG \text{ Life})} * (1 - \text{Net Salvage Ratio})$$

## DETAILED DISCUSSION

### Depreciation Study Process

This depreciation study encompassed four distinct phases. The first phase involved data collection and field interviews. The second phase was where the initial data analysis occurred. The third phase was where the information and analysis was evaluated. Once the first three stages were complete, the fourth phase began. This phase involved the calculation of depreciation rates and documenting the corresponding recommendations.

During the Phase I data collection process, historical data was compiled from continuing property records and general ledger systems. Data was validated for accuracy by extracting and comparing to multiple financial system sources. Audit of this data was validated against historical data from prior periods, historical general ledger sources, and field personnel discussions. This data was reviewed extensively to put in the proper format for a depreciation study. Further discussion on data review and adjustment is found in the Salvage Considerations Section of this study. Also as part of the Phase I data collection process, numerous discussions were conducted with engineers and field operations personnel to obtain information that would assist in formulating life and salvage recommendations in this study. One of the most important elements of performing a proper depreciation study is to understand how the Company utilizes assets and the environment of those assets. Interviews with engineering and operations personnel are important ways to allow the analyst to obtain information that is beneficial when evaluating the output from the life and net salvage programs in relation to the Company's actual asset utilization and environment. Information that was gleaned in these discussions is found both in the Detailed Discussion of this study in the life analysis and salvage analysis sections and also in workpapers.

Phase 2 is where the actuarial analysis is performed. Phase 2 and 3 overlap to a significant degree. The detailed property records information is used in phase 2 to develop observed life tables for life analysis. These tables are visually compared to industry standard tables to determine historical life characteristics. It is possible that the analyst would cycle back to this phase based on the evaluation process performed in phase 3. Net salvage analysis consists of compiling historical salvage and removal data by functional group to determine values and trends in gross salvage and removal cost. This information was then carried forward into phase 3 for the evaluation process.

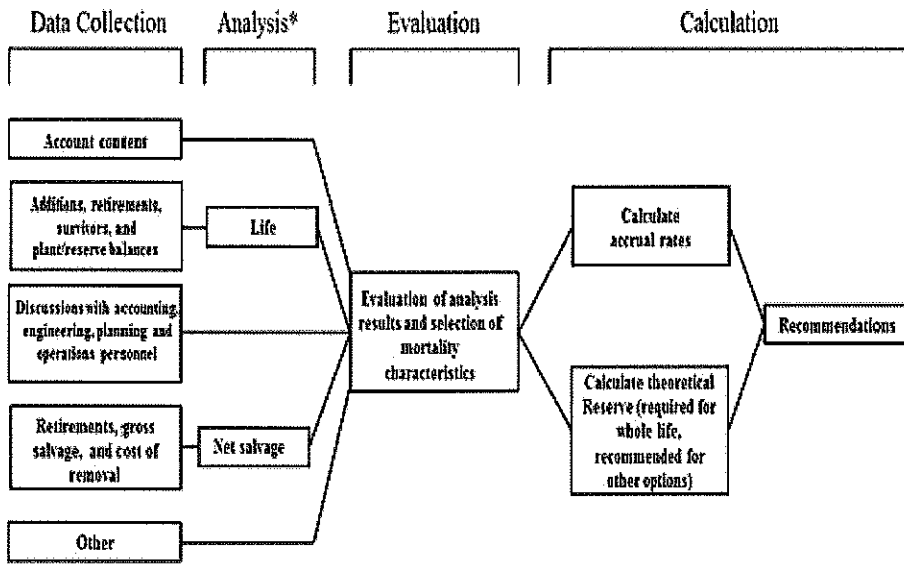
Phase 3 is the evaluation process which synthesizes analysis, interviews, and operational characteristics into a final selection of asset lives and net salvage parameters. The historical analysis from phase 2 is further enhanced by the incorporation of recent or future changes in the characteristics or operations of assets that were revealed in phase 1. Phases 2 and 3 allow the depreciation analyst to validate the asset characteristics as seen in the accounting transactions with actual Company operational experience.

Finally, Phase 4 involved the calculation of accrual rates, making recommendations and documenting the conclusions in a final report. The calculation of accrual rates is found in Appendix B. Recommendations for the various accounts are contained within the Detailed Discussion of this report. The depreciation study flow diagram shown as Figure 1<sup>1</sup> documents the steps used in conducting this study. Depreciation Systems, page 289 documents the same basic processes in performing a depreciation study which are: Statistical analyses, evaluation of statistical analysis, discussions with management, forecast assumptions, write logic supporting forecasts and estimation, and write final report.

---

<sup>1</sup> Public Utility Finance & Accounting, A Reader

### Book Depreciation Study Flow Diagram



Source: Introduction to Depreciation for Public Utilities and Other Industries, AGA EEI, 2013.

\*Although not specifically noted, the mathematical analysis may need some level of input from other sources (for example, to determine analysis bands for life and adjustments to data used in all analysis).

Figure 1

## SHARED SERVICES DEPRECIATION STUDY PROCESS

### **Depreciation Rate Calculation**

Annual depreciation expense amounts for the depreciable property accounts of Shared Services were calculated by the straight line, equal life group, and remaining-life system. With this approach, remaining lives were calculated according to standard ELG group expectancy techniques, using the Iowa Survivor Curves noted in the calculation. For each plant account, the difference between the surviving investment, adjusted for estimated net salvage and the allocated book depreciation reserve, was divided by the average remaining life to yield the annual depreciation expense. These calculations are shown in Appendix B.

### **Remaining Life Calculation**

The establishment of appropriate average service lives and retirement dispersions for each account within a functional group was based on engineering judgment that incorporated available accounting information analyzed using the actuarial methods. After establishment of appropriate average service lives and retirement dispersions, remaining lives were computed for each account. The theoretical depreciation reserve with zero net salvage (used in calculating remaining life) was calculated using theoretical reserve ratios as defined in the theoretical reserve portion of the general discussion section. The difference between plant balance and theoretical reserve was then spread over the ELG depreciation accruals. After accumulating the ELG accruals across each vintage, the annual accrual was divided into the net balance to compute remaining life. Details of the theoretical reserve computations, ELG accruals, and remaining life are found by account within each division in the study workpapers.

### **Calculation Process**

Annual depreciation expense amounts for all accounts were calculated by the straight line, remaining life procedure.

In a whole life representation, the annual accrual rate is computed by the

following equation,

$$\text{Annual Accrual Rate} = \frac{(100\% - \text{Net Salvage Percent})}{\text{Average Service Life}}$$

Use of the remaining life depreciation system adds a self-correcting mechanism, which accounts for any differences between theoretical and book depreciation reserve over the remaining life of the group. With the straight line, remaining life, average life group system using Iowa Curves, composite remaining lives were calculated according to standard broad group expectancy techniques, noted in the formula below:

$$\text{Composite Remaining Life} = \frac{\sum \text{Original Cost} - \text{Theoretical Reserve}}{\sum \text{Whole Life Annual Accrual}}$$

For each plant account, the difference between the surviving investment, adjusted for estimated net salvage, and the allocated book depreciation reserve, was divided by the composite remaining life to yield the annual depreciation expense as noted in this equation where the net salvage percent represents future net salvage.

$$\text{Annual Depreciation Expense} = \frac{\text{Original Cost} - \text{Book Reserve} - (\text{Original Cost}) * (1 - \text{Net Salvage \%})}{\text{Composite Remaining Life}}$$

Within a group, the sum of the group annual depreciation expense amounts, as a percentage of the depreciable original cost investment summed, gives the annual depreciation rate as shown below:

$$\text{Annual Depreciation Rate} = \frac{\sum \text{Annual Depreciation Expense}}{\sum \text{Original Cost}}$$

These calculations are shown in Appendix B. The calculations of the theoretical depreciation reserve values and the corresponding remaining life calculations are shown in workpapers. Book depreciation reserves were allocated to individual accounts and the theoretical reserve computation was used to compute a composite remaining life for each account.



## LIFE ANALYSIS

The retirement rate actuarial analysis method was applied to all accounts for Shared Services. For each account, an actuarial retirement rate analysis was made with placement and experience bands of varying width. The historical observed life table was plotted and compared with various Iowa Survivor Curves to obtain the most appropriate match. A selected curve for each account is shown in the Life Analysis Section of this report. The observed life tables for all analyzed placement and experience bands are provided in workpapers.

For the overall band (i.e. placement from earliest vintage year which varied for each account through 2014) for each account, various dispersion curves were plotted. Frequently, visual matching would confirm one specific dispersion pattern (i.e. L, S. or R) as a better match than others. The next step would be to determine the most appropriate life using that dispersion pattern. Then, after looking at the overall experience band, different experience bands were plotted and analyzed, for instance 1950-2014, 1985-2014, etc. Next placement bands of varying width were plotted with each experience band discussed above. Repeated matching usually pointed to a focus on one dispersion family and small range of service lives. The goal of visual matching was to minimize the differential between the observed life table and Iowa curve in top and mid range of the plots. These results are used in conjunction with all other factors that may influence asset lives.

## NET SALVAGE CONSIDERATIONS

When a capital asset is retired, physically removed from service and finally disposed of, terminal retirement is said to have occurred. The residual value of a terminal retirement is called gross salvage. Net salvage is the difference between the gross salvage (what the asset was sold for) and the removal cost (cost to remove and dispose of the asset).

### Net Salvage Characteristics

The net salvage analysis, for each account, is shown in Appendix D. Moving averages for intervals are also included in Appendix D. The assets of Shared Services generally do not incur cost of removal and salvage has declined in recent years. In this study a zero percent net salvage is recommended for each account, with the exception of Account 392, Transportation Equipment.

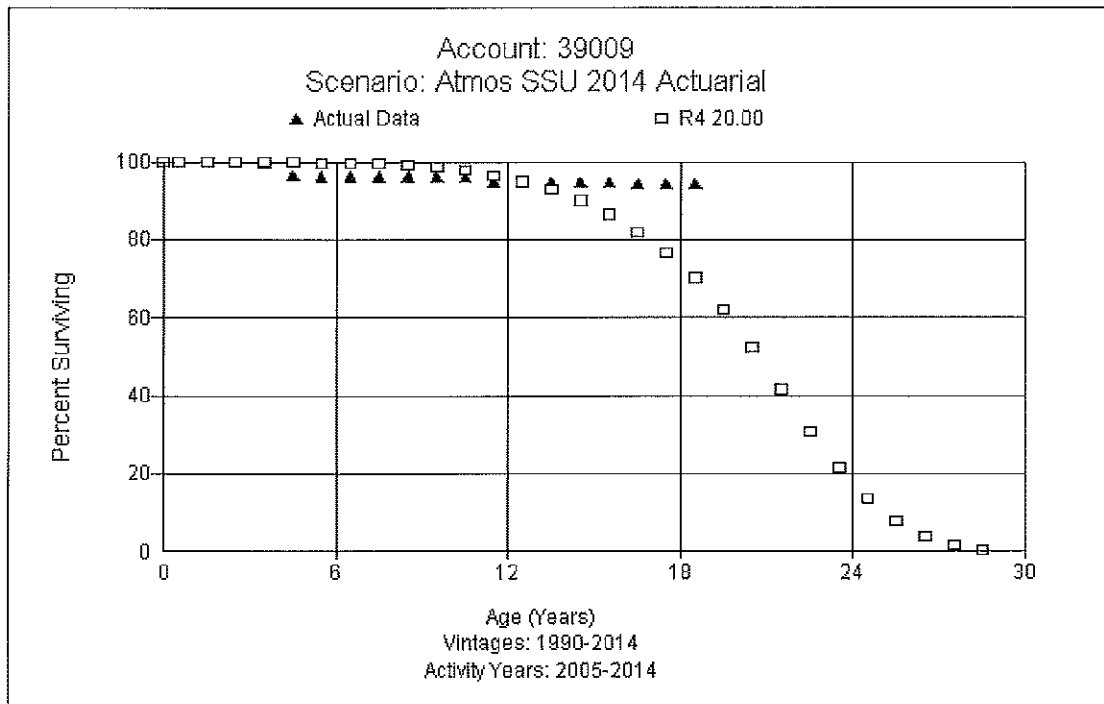
### Account Life and Net Salvage Analysis

#### **39000 – Structures & Improvements**

This account includes the cost of buildings and improvements including the Greenville operations center and the Charles K. Vaughn training center. The account balance is \$33.5 million. The average age of investment is 4.47 years, Due to the young age of the surviving investment, no curve fits were possible. Based on judgment and type of assets this study recommends a 40 year life with the R2 dispersion pattern. No graph is provided. Little to no salvage is expected. However, some cost of removal at end of life is expected for some of the assets but none has been recorded. Therefore, a zero percent net salvage is recommended at this time.

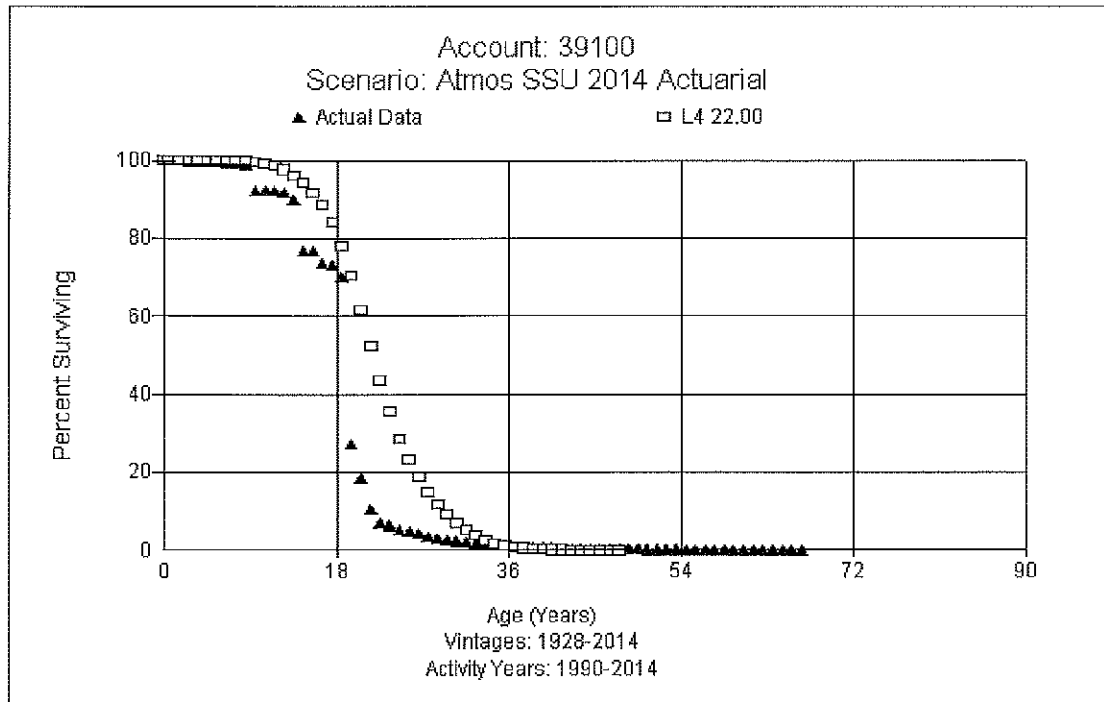
**39009 – Improvements to Leased Premises**

This account includes the cost of improvements to leased premises such as the Dallas office and call centers. The balance is \$13.1 million. Assets in this account are tied to the lease term, which is about 20 years. This study recommends retaining the 20 R4 at this time. A graph of the observed life table and the recommended life and curve are shown below. No salvage or removal cost is currently expected for these improvements, therefore a zero percent net salvage is recommending for this account.



### 39100 – Office Furniture and Equipment

This account consists of modular furniture, desks, chairs, bookcases, credenzas, file cabinets, office machines and other miscellaneous equipment. The balance is \$12.8 million. The currently approved dispersion pattern is 22 L4. An expected life range for the assets in this account is 20 to 25 years. However, the current study analysis indicates a shorter life. Discussions with Company personnel indicated some offices had been renovated and more retirements were made than would typically occur. Based on the Company input, the analysis, and future expectations, this study recommends retaining the existing 22 L4 dispersion pattern. A graph of the observed life table and the recommended life and curve are shown below. There is no cost of removal and salvage has declined to a negligible level. A zero percent net salvage rate is recommended for this account.



**39200 – Transportation Equipment**

This account consists of all transportation equipment. The balance is \$103 thousand. The currently approved dispersion pattern is unknown. Depending on the type and mix of assets, this account can range from 5-15 years. No curve fits were possible. The current average age of investment is 4.33 years. Only one retirement has been recorded. The Company leases most of its vehicles and surviving assets are golf carts, a trailer, and other miscellaneous equipment. Based on the surviving assets, this study recommends a 10 L2. No graph is provided. There is no cost of removal and salvage has declined to a negligible level. However, some salvage is expected and a 10 percent net salvage rate is recommended for this account.

**39400 – Tools, Shop & Garage Equipment**

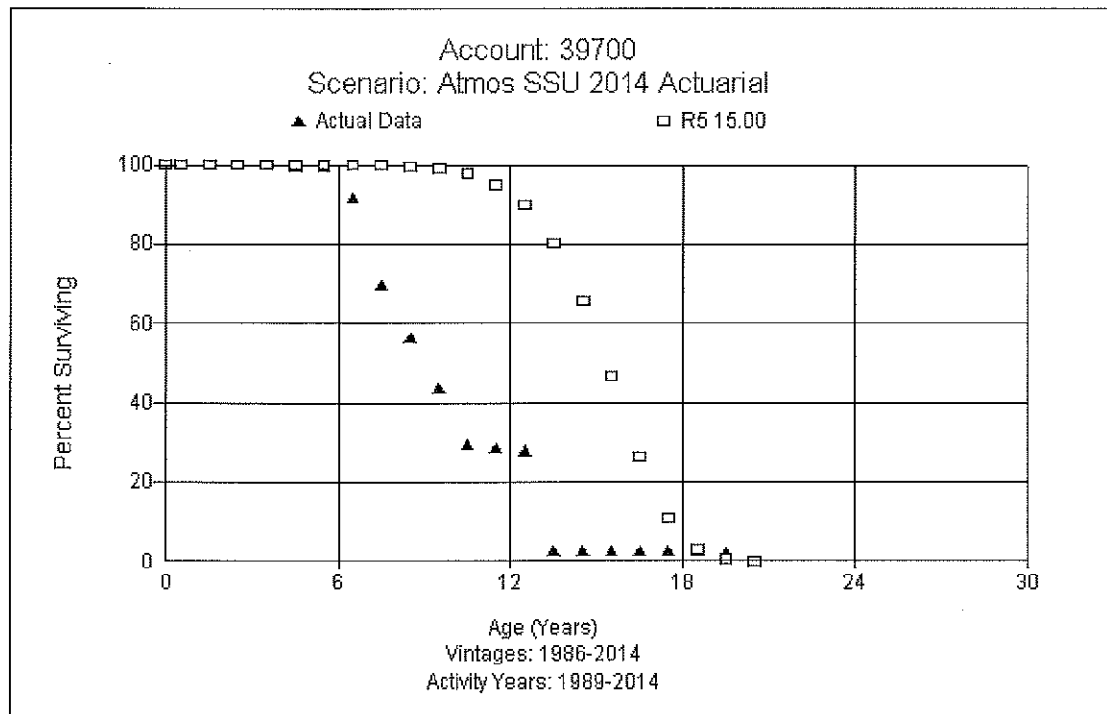
This account consists of various small tools and equipment used in an office. The balance is \$264 thousand in this account. The average age of investment is 3.59 years. Due to the type and use of the assets and the analysis, this study recommends retention of the 11 S6 life and dispersion pattern. A graph of the observed life table and the recommended life and curve are shown below. There is generally little or no salvage and no cost of removal related to the equipment in the account. This study recommends a zero percent net salvage rate for this account.

**39500 – Laboratory Equipment**

This account consists of laboratory equipment. The balance is \$24 thousand in this account. The average age of investment is 3.01 years. Assets are young, 3.01 years and no retirement activity has been recorded so no curve fits were made. Based on the type and use of the assets, this study recommends a 10 R2. No graph is provided. There is generally little or no salvage and no cost of removal related to the equipment in the account. This study recommends a zero percent net salvage rate for this account.

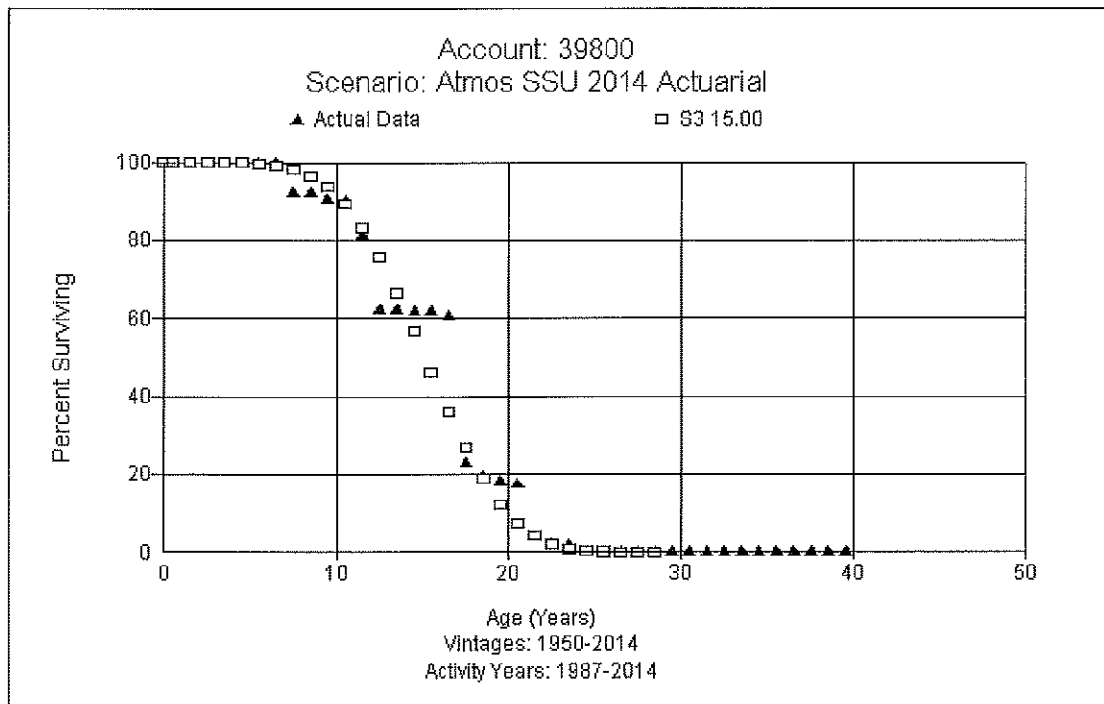
### 39700 – Communications Equipment

The communications equipment account includes communication, computer hardware, telephone, and radio equipment. The balance is \$4.7 million in this account. The current average age of assets is 6.46 years. Within 6-9 months, all switches for call center will be split between Greenville Data center (primary) and Lincoln (backup). All were replaced within last 3 years (as well as Lincoln telephone switch). Call center switches were 10-15 years old at retirement. A 15 year life is reasonable and the Company will replace pieces under O&M in the interim. Based on the analysis, the best fits were indicating a life between 7-9 years, which is due to large level of retirements in last few years. Based on all the information and judgment, a 15 year life with the R5 dispersion is recommended. A graph of the observed life table and the recommended life and curve are shown below. There has been no recent salvage and removal cost experience. This study recommends a zero percent net salvage rate for this account.



**Account 39800 - Miscellaneous Equipment**

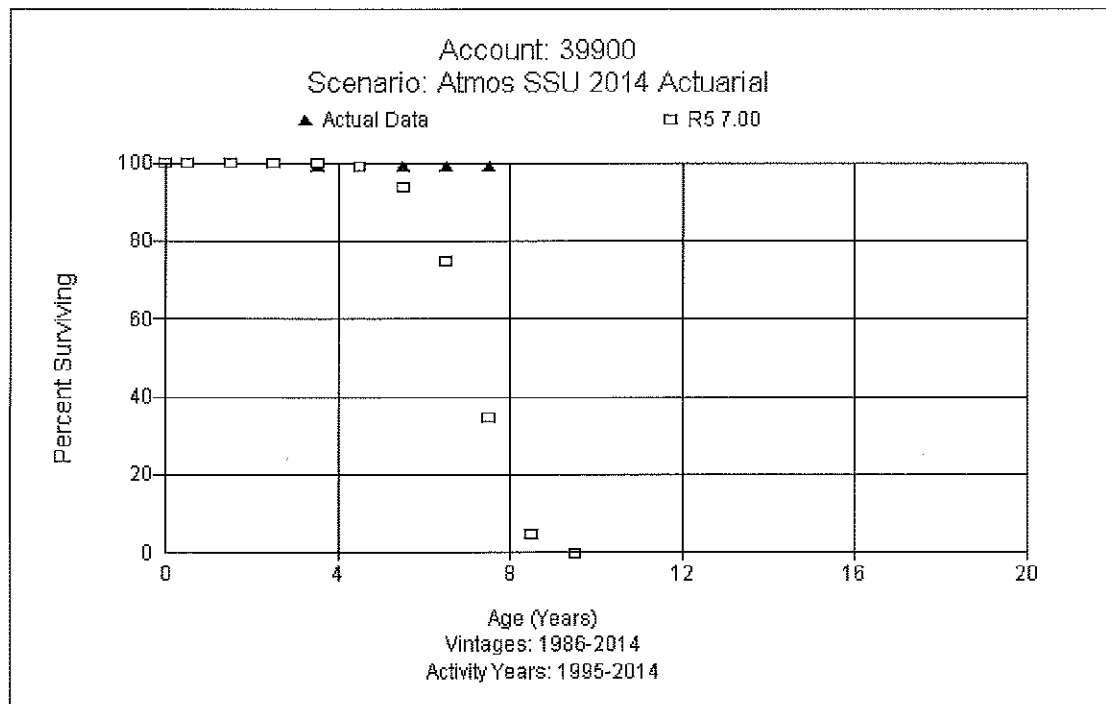
This account consists of various small office equipment items, such as kitchen appliances, televisions and audio/video equipment that are not homogeneous with other plant accounts. The balance is \$510 thousand. The majority of the fits, except the most recent bands, indicated a life around 15 years. The 15 year average service life with the S3 dispersion for assets in this account is a good fit and is recommended. A graph of the observed life table and the recommended life and curve are shown below. This study recommends a zero percent net salvage rate for this account.





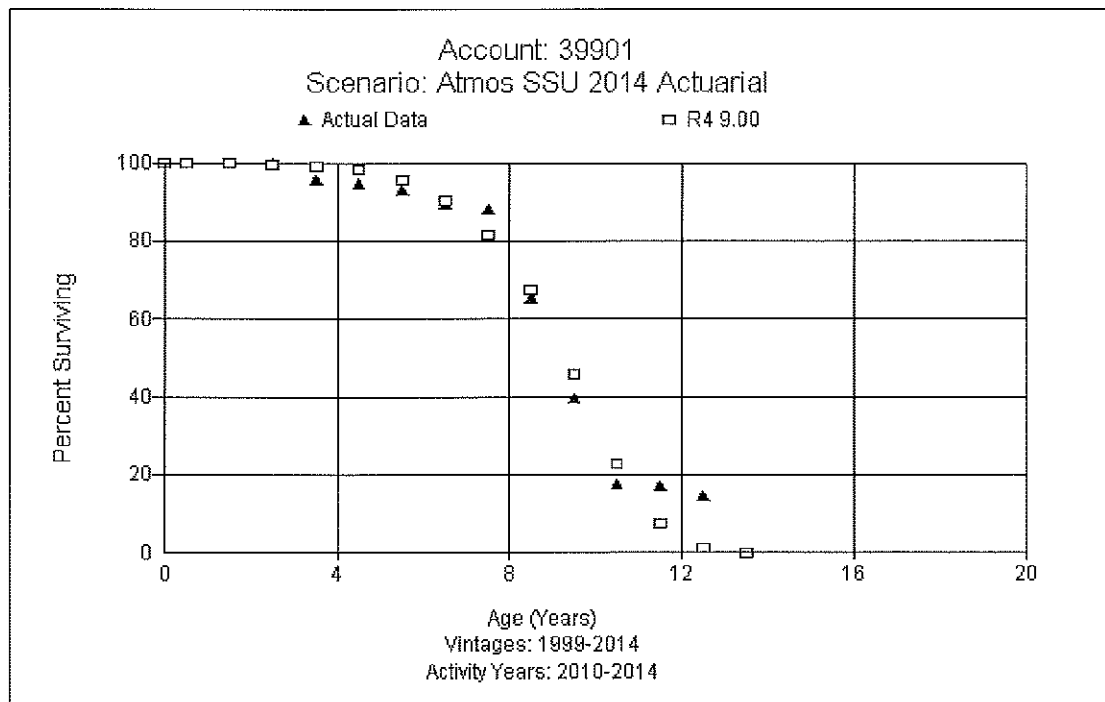
**Account 39900 – Other Tangible Property**

The other tangible property account holds some computer hardware and communication equipment. The account balance is \$889 thousand. The average age of the investment is 2.31 years and average age of retirements is 7.34 years. Best fits indicate a 7 year life, which is consistent with the expectations for this type of asset. The study recommends a 7 year life with the R5 dispersion for this account. A graph of the observed life table and the recommended life and curve are shown below. This study recommends a zero percent net salvage rate for this account.



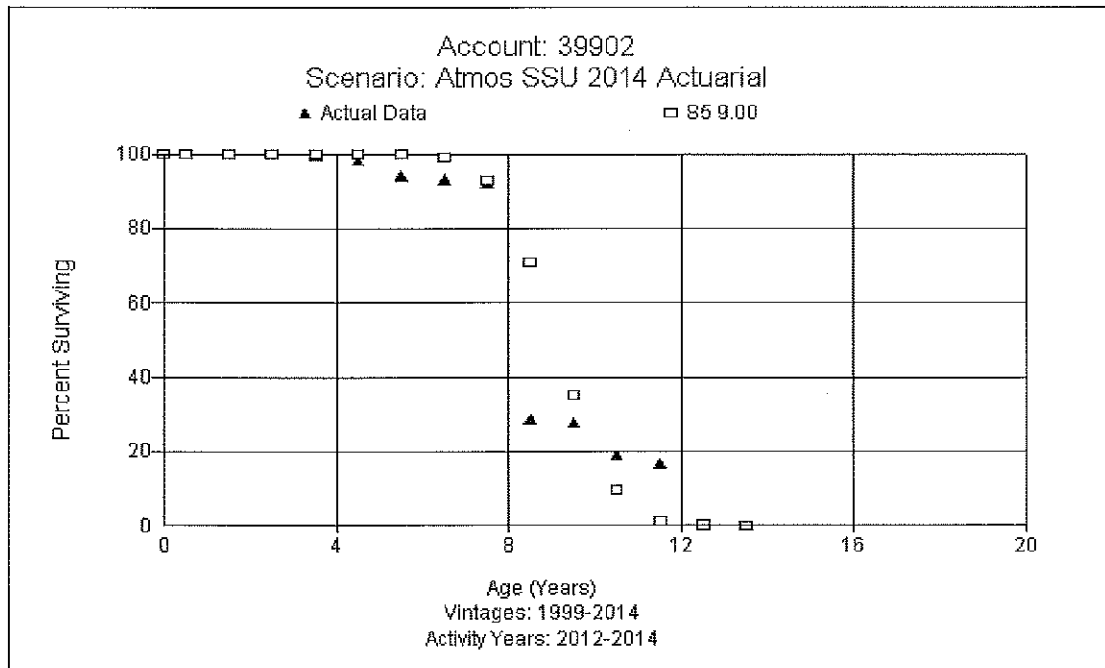
**Account 39901 – Servers Hardware**

This account consists of assets such as the HP 9000 RP 8420 servers, Oracle server, EMC DMX 3 disk array, Banner server, Markview servers and other server hardware and equipment. The balance is \$38 million. Discussions with Company personnel indicated some older equipment may stay for an extended time – but newer assets are replaced closer to a 7 years cycle. Based on the analysis and Company input, this study recommends the R4 9 for this account. A graph of the observed life table and the recommended life and curve are shown below. No salvage or cost of removal is expected and a zero percent net salvage rate is recommended for this account.



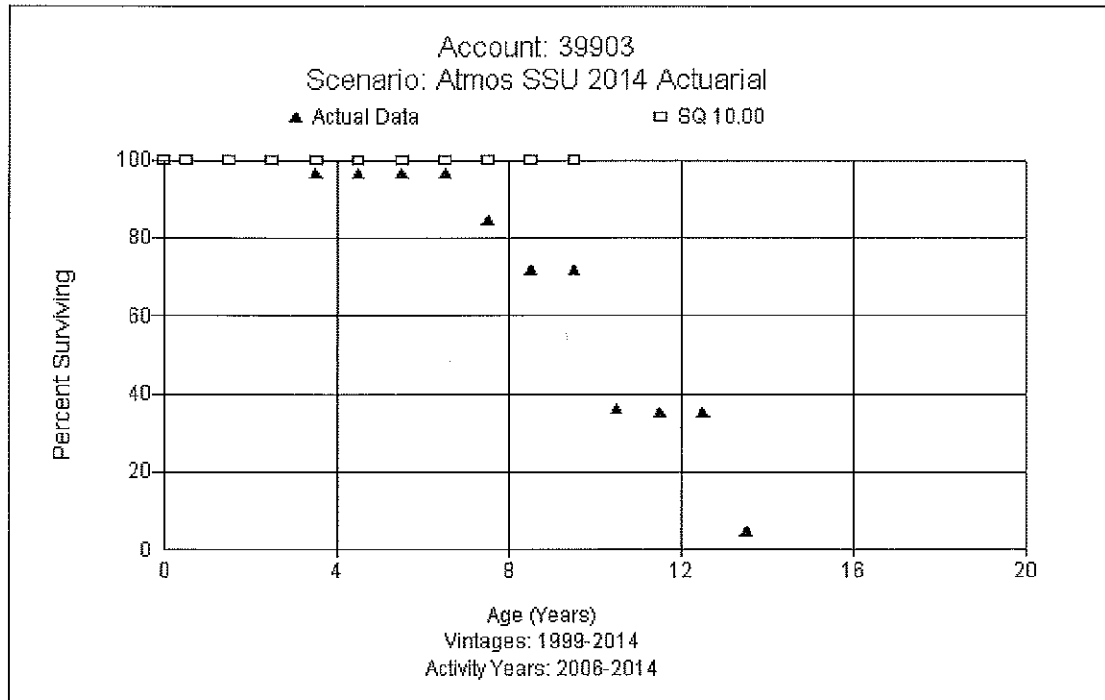
**Account 39902 – Servers Software**

This account consists of assets such as the Banner, Oracle, VMWare, Appwork scheduling, Witness, Networker, and other server attendant software for billing and software licenses. The balance is \$18.1 million. The average age of investment is 4.84 years. The average age of retirements is 11.75 years. The Company lengthened the lives of some assets due to the CSS project but now is in “catch-up” mode. Based on discussions with Company personnel software is not necessarily tied to servers. They purchase data center licenses but when a server is replaced, they don’t necessarily have to replace software. In 2014 purchased Windows server 2012 to replace the 2003 version. Technology changes are a driver for retirement and replacement. Although the Company believes a 7 year life is reasonable, based on all the information, this study recommends a 9 year average service life with and S5 dispersion pattern for this account. A graph of the observed life table and the recommended life and curve are shown below. No salvage or cost of removal is expected and a zero percent net salvage rate is recommended for this account.



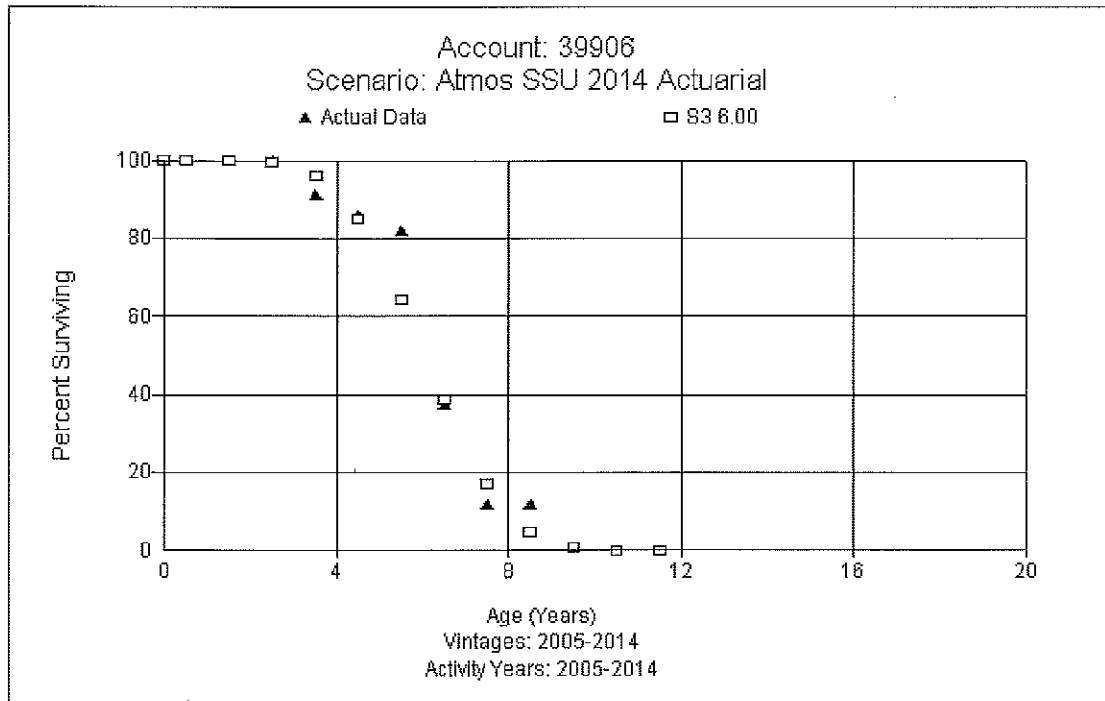
**Account 39903 – Network Hardware**

This account consists of assets related to networking activities such as routers, switches and miscellaneous networking equipment. The balance is \$4 million. The average age of retirements is 8.78 years and the average age of investment is 6.33 years. Based on discussions with Company personnel 10 years is reasonable. Currently, there is a major effort to replace all network hardware. The Company may upgrade firmware more frequently as part of expense or no charge due to maintenance contract. The analysis indicates best fits between 10-13 years. Based on all the information, this study recommends the 10 SQ, which is slightly longer than server hardware. A graph of the observed life table and the recommended life and curve are shown below. No salvage or cost of removal is expected and a zero percent net salvage rate is recommended for this account.



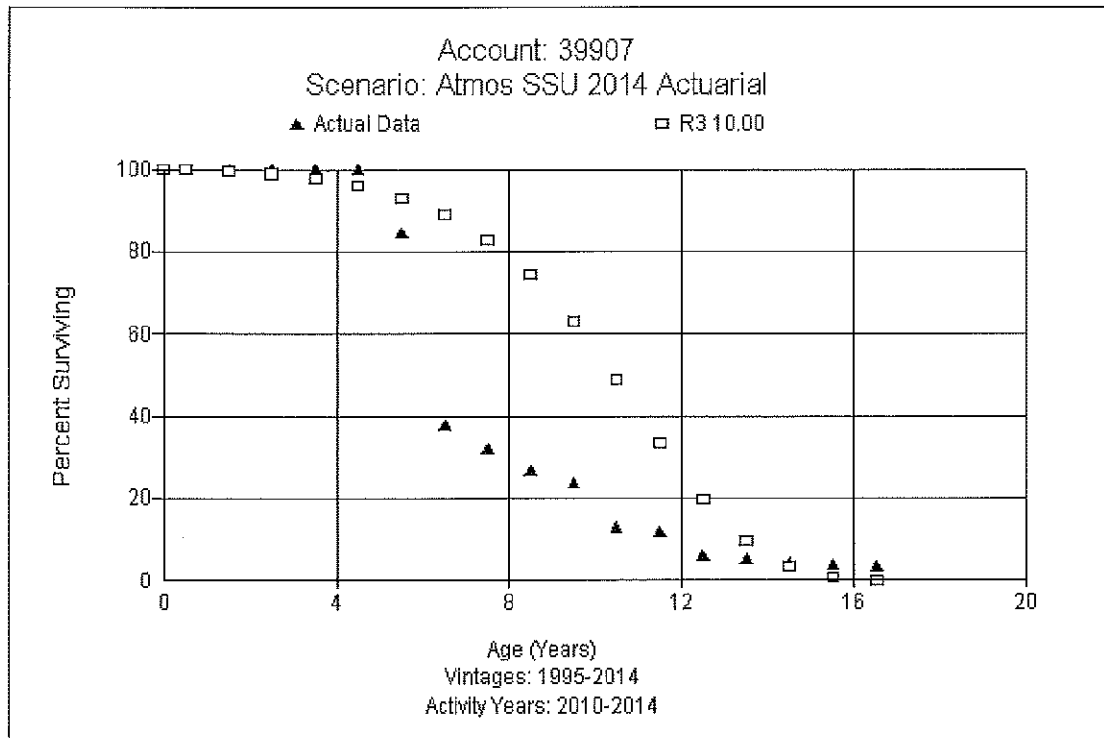
**Account 39906 – PC Hardware**

This account consists of costs for computer hardware, desktop and laptop computers, PC's for the call center, servers, and some costs associated with software licenses for PC's and servers. The balance is \$3.8 million. The average age of investment is 4.45 years and average age of retirements is 7.35 years. The life indications in the actuarial analysis suggest a life between 6-7 years. Based on discussions with Company personnel, they are holding closer to a refresh cycle. There may be some delays in retiring off the books but the analysis should see a shorter life than in the past. The average pcs/person has decreased from 1.5 to 1.2 per person. Therefore, using the most recent bands, Company input, and judgment, this study recommends a 6 year life with the S3 dispersion. A graph of the observed life table and the recommended life and curve are shown below. Generally, the Company will pay a third party to pick up old PCs but at a nominal cost. This study recommends a zero percent net salvage rate for this account.



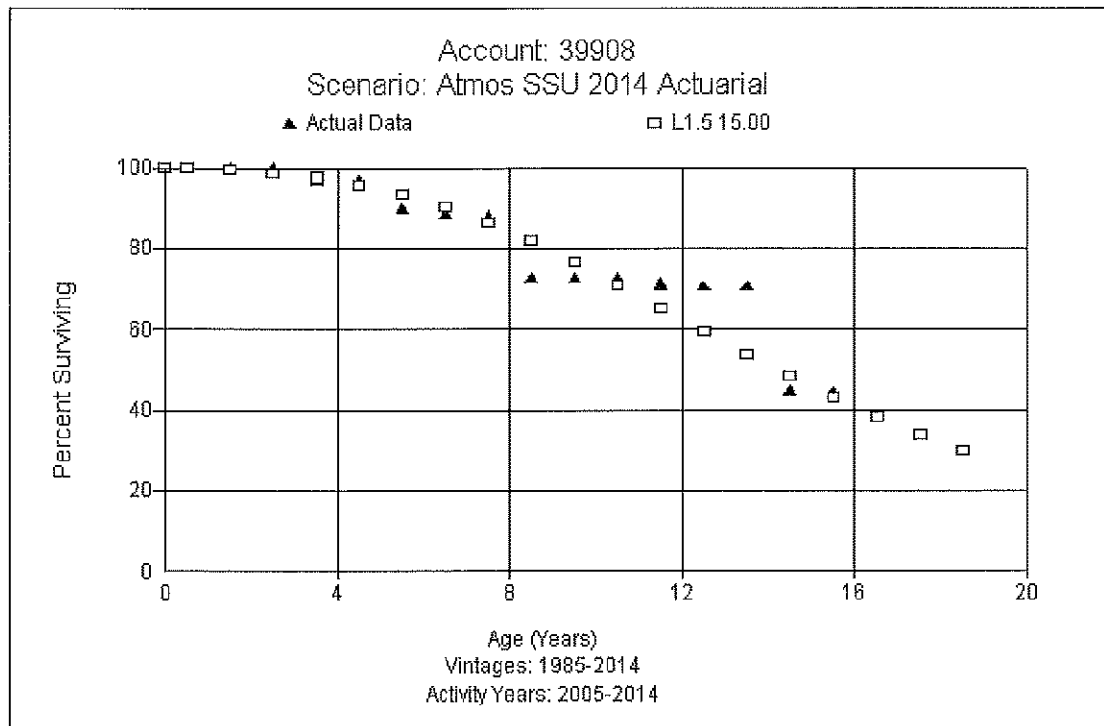
**Account 39907 – PC Software**

The PC software account holds booked investment and retirement activity for software assets including operating system software such as Windows 2000 or Windows XP, Microsoft Office, call center, Verizon dialer software, Genesys upgrade, MS Project and other related application software. The balance is \$1.6 million. The average age of investment is 7.46 years and average age of retirements is 9.12 years. Based on discussions with Company personnel the PC Software should be tied to the PC Hardware although a few software assets may have longer life e.g., Office. The Company indicated 10 years is probably at the top of the live range. There has been retirement activity in this account and the majority of the life indications in the actuarial analysis are between 9-10 years. Based on the analysis, Company input, type of assets, and judgment, this study recommends using a 10 year average service life with the R3 dispersion. A graph of the observed life table and the recommended life and curve are shown below. This study recommends a zero percent net salvage rate for this account.



**Account 39908 – Application Software**

The applications software account holds booked investment and retirement activity for software assets including billing system software, electronic mapping and training software applications, Oracle upgrade, Banner, Data Mart System, PowerPlant System, Advantage System application and the Waco Call Center IT build. The balance is \$205 million. The average age of investment is 6.55 years and average age of retirements is 10.14 years. Based on discussions with Company personnel, a new CSS application is in service. A 15-20 year life for the large enterprise systems is reasonable. Smaller systems would have a shorter life. Oracle Financial 2012 was put in last year. When upgraded, the Company will capitalize upgrades but not retire original platform. Based on the analysis, numerous fits are around 12 years. Based on all the information and judgment, this study recommends a 15 year average service life with the L1.5 dispersion for this account. A graph of the observed life table and the recommended life and curve are shown below. This study recommends a zero percent net salvage rate for this account.



**Account 39909 – Main Frame Software**

This account consists of costs related to Oracle, assembler language, security control package, natural VSAM and other related software. The balance is \$1.0 million and is fully depreciated. The assets will be retired and not replaced due to the use of server technology in place.



**APPENDIX A**  
**Annual Rate and Accrual**

## Appendix A

**Atmos Energy - Shared Services**  
**At September 30, 2014**  
**Depreciation Study Annual Depreciation Rates and Accruals**

| Account   | Description                     | Plant Balance<br>09/30/2014 | Accrual<br>Rate | Annual            |                      |
|---|---------------------------------|-----------------------------|-----------------|-------------------|----------------------|
|   |                                 |                             |                 | Accrual<br>Amount | Accrual<br>Amount    |
| (a)   | (b)                             | (c)                         | (d)             | (e)               | (e)                  |
| <b><u>DIVISION 002 - SSU GENERAL OFFICE</u></b>   |                                 |                             |                 |                   |                      |
| 39000   | Structure & Improvements        | \$ 1,309,245.93             | 3.01%           | \$                | 39,432.12            |
| 39005   | Structure & Improvements        | 9,199,400.51                | 3.01%           |                   | 277,069.34           |
| 39009   | Improvements - Leased           | 8,856,029.45                | 3.25%           |                   | 287,646.34           |
| 39100   | Office Furniture & Equipment    | 10,496,896.14               | 3.96%           |                   | 416,169.19           |
| 39104   | Office Furniture & Equipment    | 63,740.85                   | 3.96%           |                   | 2,527.13             |
| 39200   | Transportation Equipment        | 103,415.63                  | 8.34%           |                   | 8,621.95             |
| 39400   | Tools, Shop, & Garage Equipment | 264,475.83                  | 8.37%           |                   | 22,130.70            |
| 39500   | Laboratory Equipment            | 23,632.07                   | 10.05%          |                   | 2,374.04             |
| 39700   | Communication Equipment         | 2,448,692.24                | 5.85%           |                   | 143,284.81           |
| 39800   | Miscellaneous Equipment         | 481,520.80                  | 5.29%           |                   | 25,465.39            |
| 39900   | Other Tangible Equipment        | 168,103.30                  | 13.06%          |                   | 21,957.94            |
| 39901   | Servers-Hardware                | 29,891,192.11               | 9.48%           |                   | 2,835,048.87         |
| 39902   | Servers-Software                | 16,346,607.65               | 8.93%           |                   | 1,460,379.34         |
| 39903   | Network Hardware                | 3,560,450.29                | 6.99%           |                   | 248,985.80           |
| 39906   | Pc Hardware                     | 2,696,309.27                | 10.49%          |                   | 282,780.48           |
| 39907   | Pc Software                     | 1,029,795.48                | 6.63%           |                   | 68,226.99            |
| 39908   | Application Software            | 95,314,476.75               | 6.52%           |                   | 6,210,612.92         |
|   | <b>Total SSU General Office</b> | <b>182,253,984.30</b>       | <b>6.78%</b>    |                   | <b>12,352,713.36</b> |
| <b><u>DIVISION 012 - SSU CUSTOMER SUPPORT</u></b> |                                 |                             |                 |                   |                      |
| 39000   | Structure & Improvements        | 12,583,274.85               | 3.01%           |                   | 378,985.53           |
| 39009   | Improvements - Leased           | 4,298,434.33                | 3.25%           |                   | 139,614.36           |
| 39010   | CKV-Structures & Improvements   | 10,419,806.71               | 3.01%           |                   | 313,825.77           |
| 39100   | Office Furniture & Equipment    | 2,303,598.12                | 3.96%           |                   | 91,330.48            |
| 39103   | Office Machines                 | 4,057.89                    | 3.96%           |                   | 160.88               |
| 39700   | Communication Equipment         | 1,962,784.81                | 5.85%           |                   | 114,852.02           |
| 39710   | CKV-Communication Equipment     | 271,621.22                  | 5.85%           |                   | 15,893.87            |
| 39800   | Miscellaneous Equipment         | 28,617.03                   | 5.29%           |                   | 1,513.42             |
| 39900   | Other Tangible Equipment        | 629,166.46                  | 13.06%          |                   | 82,182.80            |
| 39901   | Servers-Hardware                | 7,924,716.14                | 9.48%           |                   | 751,624.67           |
| 39902   | Servers-Software                | 1,786,301.86                | 8.93%           |                   | 159,585.30           |
| 39903   | Network Hardware                | 494,406.42                  | 6.99%           |                   | 34,574.33            |
| 39906   | Pc Hardware                     | 872,782.54                  | 10.49%          |                   | 91,534.70            |
| 39907   | Pc Software                     | 499,710.36                  | 6.63%           |                   | 33,107.28            |
| 39908   | Application Software            | 109,873,866.14              | 6.52%           |                   | 7,159,290.76         |
| 39910   | CKV-Other Tangible Equipment    | 91,992.46                   | 13.06%          |                   | 12,016.21            |
| 39916   | CKV-Pc Hardware                 | 194,015.41                  | 10.49%          |                   | 20,347.73            |
| 39917   | CKV-Pc Software                 | 90,540.56                   | 6.63%           |                   | 5,998.58             |
|   | <b>Total Customer Support</b>   | <b>154,329,693.31</b>       | <b>6.10%</b>    |                   | <b>9,406,438.72</b>  |
|   | <b>Total Plant in Study</b>     | <b>\$ 336,583,677.61</b>    | <b>6.46%</b>    | <b>\$</b>         | <b>21,759,152.08</b> |

## Notes:

1. Accounts 39101, 39102, and 39103 are combined with Account 39100.
2. Account 39809 is combined with Account 39800.

**APPENDIX B**  
**Remaining Life Calculations**

## Appendix B

Atmos Energy - Shared Services  
At September 30, 2014  
Calculation of Depreciation Accrual Remaining Life  
With Reserve Reallocation

| Account | Description                    | Plant Balance            | Allocated Book Reserve   | Net Salvage % | Net Salvage Amount  | Unaccrued Balance        | Remaining Life | Annual                  |              |
|---------|--------------------------------|--------------------------|--------------------------|---------------|---------------------|--------------------------|----------------|-------------------------|--------------|
|         |                                |                          |                          |               |                     |                          |                | Accrual Amount          | Accrual Rate |
| (a)     | (b)                            | (c)                      | (d)                      | (e)           | (f)                 | (g)                      | (h)            | (i)                     | (j)          |
| 39000   | Structures & Improvements      | \$ 33,511,728.00         | \$ 5,387,689.67          | 0%            | \$ -                | \$ 28,124,038.33         | 27.86          | \$ 1,009,312.76         | 3.01%        |
| 39009   | Improvements - Leased          | 13,154,463.78            | 10,101,312.09            | 0%            | -                   | 3,053,151.69             | 7.15           | 427,260.70              | 3.25%        |
| 39100   | Office Furniture & Equipment   | 12,868,293.00            | 6,988,475.63             | 0%            | -                   | 5,879,817.37             | 11.52          | 510,187.68              | 3.96%        |
| 39200   | Transportation Equipment       | 103,415.63               | 51,767.92                | 10%           | 10,341.56           | 41,306.14                | 4.79           | 8,621.95                | 8.34%        |
| 39400   | Tools Shop And Garage          | 264,475.83               | 102,156.77               | 0%            | -                   | 162,319.06               | 7.33           | 22,130.70               | 8.37%        |
| 39500   | Laboratory Equipment           | 23,632.07                | 9,147.89                 | 0%            | -                   | 14,484.18                | 6.10           | 2,374.04                | 10.05%       |
| 39700   | Communication Equipment        | 4,683,098.27             | 2,379,742.87             | 0%            | -                   | 2,303,355.40             | 8.41           | 274,030.70              | 5.85%        |
| 39800   | Miscellaneous Equipmeent       | 510,137.83               | 287,538.91               | 0%            | -                   | 222,598.92               | 8.25           | 26,978.82               | 5.29%        |
| 39900   | Other Tangible Equipment       | 889,262.22               | 380,313.34               | 0%            | -                   | 508,948.88               | 4.38           | 116,156.96              | 13.06%       |
| 39901   | Servers-Hardware               | 37,815,908.25            | 21,091,805.13            | 0%            | -                   | 16,724,103.12            | 4.66           | 3,586,673.55            | 9.48%        |
| 39902   | Servers-Software               | 18,132,909.51            | 11,337,185.90            | 0%            | -                   | 6,795,723.61             | 4.19           | 1,619,964.65            | 8.93%        |
| 39903   | Network Hardware               | 4,054,856.71             | 3,012,739.55             | 0%            | -                   | 1,042,117.16             | 3.68           | 283,560.13              | 6.99%        |
| 39906   | PC Hardware                    | 3,763,107.22             | 2,877,983.27             | 0%            | -                   | 885,123.95               | 2.24           | 394,662.92              | 10.49%       |
| 39907   | PC Software                    | 1,620,046.40             | 1,182,030.73             | 0%            | -                   | 438,015.67               | 4.08           | 107,332.85              | 6.63%        |
| 39908   | Application Software           | 205,188,342.89           | 94,601,556.77            | 0%            | -                   | 110,586,786.12           | 8.27           | 13,369,903.68           | 6.52%        |
|         | <b>Total Depreciable Plant</b> | <b>\$ 336,583,677.61</b> | <b>\$ 159,791,446.44</b> |               | <b>\$ 10,341.56</b> | <b>\$ 176,781,889.61</b> |                | <b>\$ 21,759,152.08</b> | <b>6.46%</b> |

**APPENDIX C**  
**Mortality Characteristics**

## Appendix C

**Atmos Energy - Shared Services Unit  
Depreciation Study as of September 30, 2014  
Proposed Depreciation Mortality Characteristics**

| <u>Account</u>                                    | <u>Description</u>              | <u>ASL</u> | <u>Curve</u> | <u>Gross<br/>Salvage</u> | <u>Cost of<br/>Removal</u> | <u>Net<br/>Salvage</u> |
|---|---------------------------------|------------|--------------|--------------------------|----------------------------|------------------------|
| <b><u>DIVISION 002 - SSU GENERAL OFFICE</u></b>   |                                 |            |              |                          |                            |                        |
| 39000   | Structure & Improvements        | 40         | R2           | 0%                       | 0%                         | 0%                     |
| 39005   | Structure & Improvements        | 40         | R2           | 0%                       | 0%                         | 0%                     |
| 39009   | Improvements - Leased           | 20         | R4           | 0%                       | 0%                         | 0%                     |
| 39100   | Office Furniture & Equipment    | 22         | L4           | 0%                       | 0%                         | 0%                     |
| 39101   | Office Furniture & Equipment    | 22         | L4           | 0%                       | 0%                         | 0%                     |
| 39102   | Remittance Processing           | 22         | L4           | 0%                       | 0%                         | 0%                     |
| 39103   | Office Machines                 | 22         | L4           | 0%                       | 0%                         | 0%                     |
| 39104   | Office Furniture & Equipment    | 22         | L4           | 0%                       | 0%                         | 0%                     |
| 39200   | Transportation Equipment        | 10         | L2           | 10%                      | 0%                         | 10%                    |
| 39400   | Tools, Shop, & Garage Equipment | 11         | S6           | 0%                       | 0%                         | 0%                     |
| 39500   | Laboratory Equipment            | 10         | R2           | 0%                       | 0%                         | 0%                     |
| 39700   | Communication Equipment         | 15         | R5           | 0%                       | 0%                         | 0%                     |
| 39800   | Miscellaneous Equipment         | 15         | S3           | 0%                       | 0%                         | 0%                     |
| 39809   | Inserters                       | 15         | S3           | 0%                       | 0%                         | 0%                     |
| 39900   | Other Tangible Equipment        | 7          | R5           | 0%                       | 0%                         | 0%                     |
| 39901   | Servers-Hardware                | 9          | R4           | 0%                       | 0%                         | 0%                     |
| 39902   | Servers-Software                | 9          | S5           | 0%                       | 0%                         | 0%                     |
| 39903   | Network Hardware                | 10         | SQ           | 0%                       | 0%                         | 0%                     |
| 39906   | Pc Hardware                     | 6          | S3           | 0%                       | 0%                         | 0%                     |
| 39907   | Pc Software                     | 10         | R3           | 0%                       | 0%                         | 0%                     |
| 39908   | Application Software            | 15         | L1.5         | 0%                       | 0%                         | 0%                     |
| <b><u>DIVISION 012 - SSU CUSTOMER SUPPORT</u></b> |                                 |            |              |                          |                            |                        |
| 39000   | Structure & Improvements        | 40         | R2           | 0%                       | 0%                         | 0%                     |
| 39009   | Improvements - Leased           | 20         | R4           | 0%                       | 0%                         | 0%                     |
| 39010   | CKV-Structures & Improvements   | 40         | R2           | 0%                       | 0%                         | 0%                     |
| 39100   | Office Furniture & Equipment    | 18         | L4           | 0%                       | 0%                         | 0%                     |
| 39101   | Office Furniture & Equipment    | 18         | L4           | 0%                       | 0%                         | 0%                     |
| 39102   | Remittance Processing           | 18         | L4           | 0%                       | 0%                         | 0%                     |
| 39103   | Office Machines                 | 18         | L4           | 0%                       | 0%                         | 0%                     |
| 39700   | Communication Equipment         | 15         | R5           | 0%                       | 0%                         | 0%                     |
| 39710   | CKV-Communication Equipment     | 15         | R5           | 0%                       | 0%                         | 0%                     |
| 39800   | Miscellaneous Equipment         | 15         | S3           | 0%                       | 0%                         | 0%                     |
| 39900   | Other Tangible Equipment        | 7          | R5           | 0%                       | 0%                         | 0%                     |
| 39901   | Servers-Hardware                | 9          | R4           | 0%                       | 0%                         | 0%                     |
| 39902   | Servers-Software                | 8          | S5           | 0%                       | 0%                         | 0%                     |
| 39903   | Network Hardware                | 10         | SQ           | 0%                       | 0%                         | 0%                     |
| 39906   | Pc Hardware                     | 6          | S3           | 0%                       | 0%                         | 0%                     |
| 39907   | Pc Software                     | 10         | R3           | 0%                       | 0%                         | 0%                     |
| 39908   | Application Software            | 15         | L1.5         | 0%                       | 0%                         | 0%                     |
| 39910   | CKV-Other Tangible Equipment    | 7          | R5           | 0%                       | 0%                         | 0%                     |
| 39916   | CKV-Pc Hardware                 | 6          | S3           | 0%                       | 0%                         | 0%                     |
| 39917   | CKV-Pc Software                 | 10         | R3           | 0%                       | 0%                         | 0%                     |

**APPENDIX D**  
**Net Salvage Analysis**





**ATMOS ENERGY - SHARED SERVICES UNIT**  
**Depreciation Study as of September 30, 2014**  
**Net Salvage Analysis**

| Acct  | Activity Year | Retirement | Gross Salvage | Cost of Removal | Net Salvage | Net Salv. % | 2- yr Net Salv. % | 3- yr Net Salv. % | 4- yr Net Salv. % | 5- yr Net Salv. % | 6- yr Net Salv. % | 7- yr Net Salv. % | 8- yr Net Salv. % | 9- yr Net Salv. % | 10- yr Net Salv. % |
|-------|---------------|------------|---------------|-----------------|-------------|-------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| 39100 | 1995          | 852        | -             | -               | 0           | 0.0%        | 0.0%              | 0.2%              |                   |                   |                   |                   |                   |                   |                    |
| 39100 | 1996          | 92,361     | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.1%              |                   |                   |                   |                   |                   |                    |
| 39100 | 1997          | 0          | -             | (5,108)         | 5,108       | NA          | 5.5%              | 5.5%              | 5.1%              | 2.9%              |                   |                   |                   |                   |                    |
| 39100 | 1998          | 6,852      | -             | -               | 0           | 0.0%        | 74.5%             | 5.1%              | 5.1%              | 4.7%              | 2.77%             |                   |                   |                   |                    |
| 39100 | 1999          | 0          | -             | -               | 0           | NA          | 0.0%              | 74.5%             | 5.1%              | 5.1%              | 4.73%             | 2.77%             |                   |                   |                    |
| 39100 | 2000          | 0          | -             | -               | 0           | NA          | NA                | 0.0%              | 74.5%             | 5.1%              | 5.10%             | 4.73%             | 2.77%             |                   |                    |
| 39100 | 2001          | 0          | -             | -               | 0           | NA          | NA                | NA                | 0.0%              | 74.5%             | 5.15%             | 5.10%             | 4.73%             | 2.77%             |                    |
| 39100 | 2002          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | 0.0%              | 74.55%            | 5.15%             | 5.10%             | 4.73%             | 2.77%              |
| 39100 | 2003          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | 0.00%             | 74.55%            | 5.15%             | 5.10%             | 4.73%              |
| 39100 | 2004          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | NA                | 0.00%             | 74.55%            | 5.15%             | 5.10%              |
| 39100 | 2005          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | NA                | NA                | 0.00%             | 74.55%            | 5.15%              |
| 39100 | 2006          | 1,420,965  | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.36%              |
| 39100 | 2007          | 75,094     | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39100 | 2008          | 0          | -             | -               | 0           | NA          | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39100 | 2009          | 225,893    | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39100 | 2010          | 95,413     | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39100 | 2011          | 0          | -             | -               | 0           | NA          | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39100 | 2012          | 788,808    | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39100 | 2013          | 1,602,991  | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39100 | 2014          | 1,163      | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39101 | 2007          | 0          | -             | -               | 0           | NA          |                   |                   |                   |                   |                   |                   |                   |                   |                    |
| 39101 | 2008          | 0          | -             | -               | 0           | NA          | NA                |                   |                   |                   |                   |                   |                   |                   |                    |
| 39101 | 2009          | 0          | -             | -               | 0           | NA          | NA                | NA                |                   |                   |                   |                   |                   |                   |                    |
| 39101 | 2010          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                |                   |                   |                   |                   |                   |                    |
| 39101 | 2011          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                |                   |                   |                   |                   |                    |
| 39101 | 2012          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | NA                |                   |                   |                   |                    |
| 39101 | 2013          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | NA                | NA                |                   |                   |                    |
| 39101 | 2014          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | NA                | NA                | NA                |                   |                    |
| 39102 | 2007          | 0          | -             | -               | 0           | NA          |                   |                   |                   |                   |                   |                   |                   |                   |                    |
| 39102 | 2008          | 0          | -             | -               | 0           | NA          | NA                |                   |                   |                   |                   |                   |                   |                   |                    |
| 39102 | 2009          | 0          | -             | -               | 0           | NA          | NA                | NA                |                   |                   |                   |                   |                   |                   |                    |
| 39102 | 2010          | 25,380     | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              |                   |                   |                   |                   |                   |                    |
| 39102 | 2011          | 0          | -             | -               | 0           | NA          | 0.0%              | 0.0%              | 0.0%              | 0.0%              |                   |                   |                   |                   |                    |
| 39102 | 2012          | 0          | -             | -               | 0           | NA          | NA                | 0.0%              | 0.0%              | 0.0%              | 0.00%             |                   |                   |                   |                    |
| 39102 | 2013          | 0          | -             | -               | 0           | NA          | NA                | NA                | 0.0%              | 0.0%              | 0.00%             | 0.00%             |                   |                   |                    |



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**Net Salvage Analysis**

| Acct  | Activity Year | Retirement | Gross Salvage | Cost of Removal | Net Salvage | Net Salv. % | 2-yr Net Salv. % | 3-yr Net Salv. % | 4-yr Net Salv. % | 5-yr Net Salv. % | 6-yr Net Salv. % | 7-yr Net Salv. % | 8-yr Net Salv. % | 9-yr Net Salv. % | 10-yr Net Salv. % |
|-------|---------------|------------|---------------|-----------------|-------------|-------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| 39400 | 2007          | 7,683      | -             | -               | 0           | 0.0%        |                  |                  |                  |                  |                  |                  |                  |                  |                   |
| 39400 | 2008          | 0          | -             | -               | 0           | NA          | 0.0%             |                  |                  |                  |                  |                  |                  |                  |                   |
| 39400 | 2009          | 0          | -             | -               | 0           | NA          | NA               | 0.0%             |                  |                  |                  |                  |                  |                  |                   |
| 39400 | 2010          | 0          | -             | -               | 0           | NA          | NA               | NA               | 0.0%             |                  |                  |                  |                  |                  |                   |
| 39400 | 2011          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | 0.0%             |                  |                  |                  |                  |                   |
| 39400 | 2012          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | 0.00%            |                  |                  |                  |                   |
| 39400 | 2013          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | NA               | 0.00%            |                  |                  |                   |
| 39400 | 2014          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | NA               | NA               | 0.00%            |                  |                   |
| 39500 | 2007          | 0          | -             | -               | 0           | NA          |                  |                  |                  |                  |                  |                  |                  |                  |                   |
| 39500 | 2008          | 0          | -             | -               | 0           | NA          | NA               |                  |                  |                  |                  |                  |                  |                  |                   |
| 39500 | 2009          | 0          | -             | -               | 0           | NA          | NA               | NA               |                  |                  |                  |                  |                  |                  |                   |
| 39500 | 2010          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               |                  |                  |                  |                  |                  |                   |
| 39500 | 2011          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               |                  |                  |                  |                  |                   |
| 39500 | 2012          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | NA               |                  |                  |                  |                   |
| 39500 | 2013          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | NA               | NA               |                  |                  |                   |
| 39500 | 2014          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | NA               | NA               | NA               |                  |                   |
| 39700 | 1993          | 8,091      | -             | -               | 0           | 0.0%        |                  |                  |                  |                  |                  |                  |                  |                  |                   |
| 39700 | 1994          | 0          | -             | -               | 0           | NA          | 0.0%             |                  |                  |                  |                  |                  |                  |                  |                   |
| 39700 | 1995          | 0          | -             | -               | 0           | NA          | NA               | 0.0%             |                  |                  |                  |                  |                  |                  |                   |
| 39700 | 1996          | 0          | -             | -               | 0           | NA          | NA               | NA               | 0.0%             |                  |                  |                  |                  |                  |                   |
| 39700 | 1997          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | 0.0%             |                  |                  |                  |                  |                   |
| 39700 | 1998          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | 0.00%            |                  |                  |                  |                   |
| 39700 | 1999          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | NA               | 0.00%            |                  |                  |                   |
| 39700 | 2000          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | NA               | NA               | 0.00%            |                  |                   |
| 39700 | 2001          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | NA               | NA               | NA               | 0.00%            |                   |
| 39700 | 2002          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | NA               | NA               | NA               | NA               | 0.00%             |
| 39700 | 2003          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | NA               | NA               | NA               | NA               | NA                |
| 39700 | 2004          | 34,015     | 26,609        | 3,107           | 23,502      | 69.1%       | 69.1%            | 69.1%            | 69.1%            | 69.1%            | 69.09%           | 69.09%           | 69.09%           | 69.09%           | 69.09%            |
| 39700 | 2005          | 0          | -             | -               | 0           | NA          | 69.1%            | 69.1%            | 69.1%            | 69.1%            | 69.09%           | 69.09%           | 69.09%           | 69.09%           | 69.09%            |
| 39700 | 2006          | 792,568    | -             | -               | 0           | 0.0%        | 0.0%             | 2.8%             | 2.8%             | 2.8%             | 2.84%            | 2.84%            | 2.84%            | 2.84%            | 2.84%             |
| 39700 | 2007          | 0          | -             | -               | 0           | NA          | 0.0%             | 0.0%             | 2.8%             | 2.8%             | 2.84%            | 2.84%            | 2.84%            | 2.84%            | 2.84%             |
| 39700 | 2008          | 16,530     | -             | -               | 0           | 0.0%        | 0.0%             | 0.0%             | 0.0%             | 2.8%             | 2.79%            | 2.79%            | 2.79%            | 2.79%            | 2.79%             |
| 39700 | 2009          | 0          | -             | -               | 0           | NA          | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 2.79%            | 2.79%            | 2.79%            | 2.79%            | 2.79%             |



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| Acct  | Activity Year | Retirement | Gross Salvage | Cost of Removal | Net Salvage | Net Salv. % | 2- yr Net Salv. % | 3- yr Net Salv. % | 4- yr Net Salv. % | 5- yr Net Salv. % | 6- yr Net Salv. % | 7- yr Net Salv. % | 8- yr Net Salv. % | 9- yr Net Salv. % | 10- yr Net Salv. % |
|-------|---------------|------------|---------------|-----------------|-------------|-------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| 39900 | 1995          | 0          | -             | -               | 0           | NA          | 0.0%              |                   |                   |                   |                   |                   |                   |                   |                    |
| 39900 | 1996          | 0          | -             | -               | 0           | NA          | NA                | 0.0%              |                   |                   |                   |                   |                   |                   |                    |
| 39900 | 1997          | 0          | -             | -               | 0           | NA          | NA                | NA                | 0.0%              |                   |                   |                   |                   |                   |                    |
| 39900 | 1998          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | 0.0%              |                   |                   |                   |                   |                    |
| 39900 | 1999          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | 0.00%             |                   |                   |                   |                    |
| 39900 | 2000          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | NA                | 0.00%             |                   |                   |                    |
| 39900 | 2001          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | NA                | NA                | 0.00%             |                   |                    |
| 39900 | 2002          | 8,143      | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             |                    |
| 39900 | 2003          | 0          | -             | -               | 0           | NA          | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39900 | 2004          | 0          | -             | -               | 0           | NA          | NA                | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39900 | 2005          | 0          | -             | -               | 0           | NA          | NA                | NA                | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39900 | 2006          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39900 | 2007          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39900 | 2008          | 224,866    | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39900 | 2009          | 0          | -             | -               | 0           | NA          | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39900 | 2010          | 0          | -             | -               | 0           | NA          | NA                | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39900 | 2011          | 0          | -             | -               | 0           | NA          | NA                | NA                | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39900 | 2011          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39900 | 2012          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39900 | 2013          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | NA                | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39900 | 2014          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | NA                | NA                | 0.00%             | 0.00%             | 0.00%              |
| 39901 | 2007          | 0          | -             | -               | 0           | NA          |                   |                   |                   |                   |                   |                   |                   |                   |                    |
| 39901 | 2008          | 0          | -             | -               | 0           | NA          | NA                |                   |                   |                   |                   |                   |                   |                   |                    |
| 39901 | 2009          | 0          | -             | -               | 0           | NA          | NA                | NA                |                   |                   |                   |                   |                   |                   |                    |
| 39901 | 2010          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                |                   |                   |                   |                   |                   |                    |
| 39901 | 2011          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                |                   |                   |                   |                   |                    |
| 39901 | 2012          | 10,873,205 | -             | (129)           | 129         | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             |                   |                   |                   |                    |
| 39901 | 2013          | 3,585,984  | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             |                   |                   |                    |
| 39901 | 2014          | 452,050    | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             |                   |                    |
| 39902 | 2007          | 0          | -             | -               | 0           | NA          |                   |                   |                   |                   |                   |                   |                   |                   |                    |
| 39902 | 2008          | 0          | -             | -               | 0           | NA          | NA                |                   |                   |                   |                   |                   |                   |                   |                    |
| 39902 | 2009          | 0          | -             | -               | 0           | NA          | NA                | NA                |                   |                   |                   |                   |                   |                   |                    |
| 39902 | 2010          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                |                   |                   |                   |                   |                   |                    |
| 39902 | 2011          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                |                   |                   |                   |                   |                    |
| 39902 | 2012          | 6,624,796  | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             |                   |                   |                   |                    |

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| Acct     | Activity Year | Retirement | Gross Salvage | Cost of Removal | Net Salvage | Net Salv. % | 2-yr Net Salv. % | 3-yr Net Salv. % | 4-yr Net Salv. % | 5-yr Net Salv. % | 6-yr Net Salv. % | 7-yr Net Salv. % | 8-yr Net Salv. % | 9-yr Net Salv. % | 10-yr Net Salv. % |
|----------|---------------|------------|---------------|-----------------|-------------|-------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| 39902    | 2013          | 1,467,368  | -             | -               | 0           | 0.0%        | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            |                  |                  |                   |
| 39902    | 2014          | 497,701    | -             | -               | 0           | 0.0%        | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            |                  |                   |
| 39903    | 2006          | 11,472     | -             | -               | 0           | 0.0%        |                  |                  |                  |                  |                  |                  |                  |                  |                   |
| 39903    | 2007          | 0          | -             | -               | 0           | NA          | 0.0%             |                  |                  |                  |                  |                  |                  |                  |                   |
| 39903    | 2008          | 0          | -             | -               | 0           | NA          |                  | 0.0%             |                  |                  |                  |                  |                  |                  |                   |
| 39903    | 2009          | 0          | -             | -               | 0           | NA          |                  | NA               | 0.0%             |                  |                  |                  |                  |                  |                   |
| 39903    | 2010          | 0          | -             | -               | 0           | NA          |                  | NA               | NA               | 0.0%             |                  |                  |                  |                  |                   |
| 39903    | 2011          | 0          | -             | -               | 0           | NA          |                  | NA               | NA               | NA               |                  |                  |                  |                  |                   |
| 39903    | 2012          | 886,044    | -             | 1,278           | (1,278)     | -0.1%       | -0.1%            | -0.1%            | -0.1%            | -0.1%            | -0.14%           |                  |                  |                  |                   |
| 39903    | 2013          | 110,059    | -             | -               | 0           | 0.0%        | -0.1%            | -0.1%            | -0.1%            | -0.1%            | -0.13%           | -0.13%           |                  |                  |                   |
| 39903    | 2014          | 237,149    | -             | -               | 0           | 0.0%        | 0.0%             | -0.1%            | -0.1%            | -0.1%            | -0.10%           | -0.10%           | -0.10%           |                  |                   |
| 39904    | 2007          | 0          | -             | -               | 0           | NA          |                  |                  |                  |                  |                  |                  |                  |                  |                   |
| 39904    | 2008          | 0          | -             | -               | 0           | NA          | NA               |                  |                  |                  |                  |                  |                  |                  |                   |
| 39904    | 2009          | 0          | -             | -               | 0           | NA          | NA               | NA               |                  |                  |                  |                  |                  |                  |                   |
| 39904    | 2010          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               |                  |                  |                  |                  |                  |                   |
| 39904    | 2011          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               |                  |                  |                  |                  |                   |
| 39904    | 2012          | 1,095,465  | -             | -               | 0           | 0.0%        | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            |                  |                  |                  |                   |
| 39904    | 2013          | 0          | -             | -               | 0           | NA          | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            |                  |                  |                   |
| 39904    | 2014          | 0          | -             | -               | 0           | NA          | NA               | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            |                   |
| 39905    | 2007          | 0          | -             | -               | 0           | NA          |                  |                  |                  |                  |                  |                  |                  |                  |                   |
| 39905000 | 2008          | 0          | -             | -               | 0           | NA          | NA               |                  |                  |                  |                  |                  |                  |                  |                   |
| 39905000 | 2009          | 0          | -             | -               | 0           | NA          | NA               | NA               |                  |                  |                  |                  |                  |                  |                   |
| 39905000 | 2010          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               |                  |                  |                  |                  |                  |                   |
| 39905000 | 2011          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               |                  |                  |                  |                  |                   |
| 39905000 | 2012          | 1,159,964  | -             | -               | 0           | 0.0%        | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            |                  |                  |                  |                   |
| 39905000 | 2013          | 0          | -             | -               | 0           | NA          | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            |                  |                  |                   |
| 39905000 | 2014          | 0          | -             | -               | 0           | NA          | NA               | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            |                   |
| 39906    | 1994          | 97,832     | -             | -               | 0           | 0.0%        |                  |                  |                  |                  |                  |                  |                  |                  |                   |
| 39906    | 1995          | 0          | -             | -               | 0           | NA          | 0.0%             |                  |                  |                  |                  |                  |                  |                  |                   |
| 39906    | 1996          | 116,913    | -             | -               | 0           | 0.0%        | 0.0%             | 0.0%             |                  |                  |                  |                  |                  |                  |                   |
| 39906    | 1997          | 0          | -             | -               | 0           | NA          | 0.0%             | 0.0%             | 0.0%             |                  |                  |                  |                  |                  |                   |

**ATMOS ENERGY - SHARED SERVICES UNIT**  
**Depreciation Study as of September 30, 2014**  
**Net Salvage Analysis**

| Acct  | Activity Year | Retirement | Gross Salvage | Cost of Removal | Net Salvage | Net Salv. % | 2-yr Net Salv. % | 3-yr Net Salv. % | 4-yr Net Salv. % | 5-yr Net Salv. % | 6-yr Net Salv. % | 7-yr Net Salv. % | 8-yr Net Salv. % | 9-yr Net Salv. % | 10-yr Net Salv. % |
|-------|---------------|------------|---------------|-----------------|-------------|-------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|
| 39906 | 1998          | 0          | -             | -               | 0           | NA          | NA               | 0.0%             | 0.0%             | 0.0%             |                  |                  |                  |                  |                   |
| 39906 | 1999          | 0          | -             | -               | 0           | NA          | NA               | NA               | 0.0%             | 0.0%             | 0.00%            |                  |                  |                  |                   |
| 39906 | 2000          | 2,832      | 3,000         | 45              | 2,955       | 104.3%      | 104.3%           | 104.3%           | 104.3%           | 2.5%             | 2.47%            | 1.36%            |                  |                  |                   |
| 39906 | 2001          | 0          | -             | -               | 0           | NA          | 104.3%           | 104.3%           | 104.3%           | 104.3%           | 2.47%            | 2.47%            | 1.36%            |                  |                   |
| 39906 | 2002          | 6,189,732  | -             | -               | 0           | 0.0%        | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.05%            | 0.05%            | 0.05%            | 0.05%            |                   |
| 39906 | 2003          | 0          | -             | -               | 0           | NA          | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.05%            | 0.05%            | 0.05%            | 0.05%            | 0.05%             |
| 39906 | 2004          | 0          | -             | -               | 0           | NA          | NA               | 0.0%             | 0.0%             | 0.0%             | 0.05%            | 0.05%            | 0.05%            | 0.05%            | 0.05%             |
| 39906 | 2005          | 0          | -             | -               | 0           | NA          | NA               | NA               | 0.0%             | 0.0%             | 0.05%            | 0.05%            | 0.05%            | 0.05%            | 0.05%             |
| 39906 | 2006          | 2,632,955  | -             | -               | 0           | 0.0%        | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.03%            | 0.03%            | 0.03%            | 0.03%             |
| 39906 | 2007          | 0          | -             | -               | 0           | NA          | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.03%            | 0.03%            | 0.03%             |
| 39906 | 2008          | 0          | -             | -               | 0           | NA          | NA               | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.03%            | 0.03%             |
| 39906 | 2009          | 0          | -             | -               | 0           | NA          | NA               | NA               | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.03%             |
| 39906 | 2010          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39906 | 2011          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39906 | 2011          | 2,825,516  | -             | -               | 0           | 0.0%        | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39906 | 2012          | 4,649,967  | -             | -               | 0           | 0.0%        | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39906 | 2013          | 217,744    | -             | -               | 0           | 0.0%        | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39906 | 2014          | 162,562    | 250           | -               | 250         | 0.2%        | 0.1%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39907 | 1994          | 38,759     | -             | -               | 0           | 0.0%        |                  |                  |                  |                  |                  |                  |                  |                  |                   |
| 39907 | 1995          | 0          | -             | -               | 0           | NA          | 0.0%             |                  |                  |                  |                  |                  |                  |                  |                   |
| 39907 | 1996          | 0          | -             | -               | 0           | NA          | NA               | 0.0%             |                  |                  |                  |                  |                  |                  |                   |
| 39907 | 1997          | 0          | -             | -               | 0           | NA          | NA               | NA               | 0.0%             |                  |                  |                  |                  |                  |                   |
| 39907 | 1998          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | 0.0%             |                  |                  |                  |                  |                   |
| 39907 | 1999          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | 0.00%            |                  |                  |                  |                   |
| 39907 | 2000          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | NA               | 0.00%            |                  |                  |                   |
| 39907 | 2001          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | NA               | NA               | 0.00%            |                  |                   |
| 39907 | 2002          | 861,539    | -             | -               | 0           | 0.0%        | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            |                   |
| 39907 | 2003          | 0          | -             | -               | 0           | NA          | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39907 | 2004          | 0          | -             | -               | 0           | NA          | NA               | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39907 | 2005          | 0          | -             | -               | 0           | NA          | NA               | NA               | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39907 | 2006          | 16,495     | -             | -               | 0           | 0.0%        | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39907 | 2007          | 0          | -             | -               | 0           | NA          | 0.0%             | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39907 | 2008          | 0          | -             | -               | 0           | NA          | NA               | 0.0%             | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39907 | 2009          | 0          | -             | -               | 0           | NA          | NA               | NA               | 0.0%             | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39907 | 2010          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | 0.0%             | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39907 | 2011          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | 0.00%            | 0.00%            | 0.00%            | 0.00%            | 0.00%             |
| 39907 | 2011          | 0          | -             | -               | 0           | NA          | NA               | NA               | NA               | NA               | NA               | 0.00%            | 0.00%            | 0.00%            | 0.00%             |

**ATMOS ENERGY - SHARED SERVICES UNIT**  
**Depreciation Study as of September 30, 2014**  
**Net Salvage Analysis**

| Acct  | Activity Year | Retirement | Gross Salvage | Cost of Removal | Net Salvage | Net Salv. % | 2- yr Net Salv. % | 3- yr Net Salv. % | 4- yr Net Salv. % | 5- yr Net Salv. % | 6- yr Net Salv. % | 7- yr Net Salv. % | 8- yr Net Salv. % | 9- yr Net Salv. % | 10- yr Net Salv. % |
|-------|---------------|------------|---------------|-----------------|-------------|-------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| 39907 | 2012          | 2,918,743  | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39907 | 2013          | 366,151    | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39907 | 2014          | 599,561    | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39908 | 1995          | 5,256      | -             | -               | 0           | 0.0%        |                   |                   |                   |                   |                   |                   |                   |                   |                    |
| 39908 | 1996          | 0          | -             | -               | 0           | NA          | 0.0%              |                   |                   |                   |                   |                   |                   |                   |                    |
| 39908 | 1997          | 0          | -             | -               | 0           | NA          | NA                | 0.0%              |                   |                   |                   |                   |                   |                   |                    |
| 39908 | 1998          | 0          | -             | -               | 0           | NA          | NA                | NA                | 0.0%              |                   |                   |                   |                   |                   |                    |
| 39908 | 1999          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | 0.0%              |                   |                   |                   |                   |                    |
| 39908 | 2000          | 8,032,596  | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             |                   |                   |                   |                    |
| 39908 | 2001          | 0          | -             | -               | 0           | NA          | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             |                   |                   |                    |
| 39908 | 2002          | 9,573,067  | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             |                   |                    |
| 39908 | 2003          | 0          | -             | -               | 0           | NA          | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             |                    |
| 39908 | 2004          | 0          | -             | -               | 0           | NA          | NA                | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39908 | 2005          | 0          | -             | -               | 0           | NA          | NA                | NA                | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39908 | 2006          | 731,136    | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39908 | 2007          | 0          | -             | -               | 0           | NA          | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39908 | 2008          | 0          | -             | -               | 0           | NA          | NA                | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39908 | 2009          | 0          | -             | -               | 0           | NA          | NA                | NA                | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39908 | 2010          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39908 | 2011          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39908 | 2011          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                | NA                | NA                | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39908 | 2012          | 2,603,072  | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39908 | 2013          | 60,097,599 | -             | 206             | (206)       | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39908 | 2014          | -68,545    | -             | -               | 0           | 0.0%        | 0.0%              | 0.0%              | 0.0%              | 0.0%              | 0.00%             | 0.00%             | 0.00%             | 0.00%             | 0.00%              |
| 39909 | 2007          | 0          | -             | -               | 0           | NA          |                   |                   |                   |                   |                   |                   |                   |                   |                    |
| 39909 | 2008          | 0          | -             | -               | 0           | NA          | NA                |                   |                   |                   |                   |                   |                   |                   |                    |
| 39909 | 2009          | 0          | -             | -               | 0           | NA          | NA                | NA                |                   |                   |                   |                   |                   |                   |                    |
| 39909 | 2010          | 0          | -             | -               | 0           | NA          | NA                | NA                | NA                |                   |                   |                   |                   |                   |                    |