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October 12, 2016

VIA ELECTRONIC FILING

Ms. Carlotta Stauffer  
Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

Re: Petition for an increase in rates by Gulf Power Company, Docket No. 160186-EI

Re: Petition for approval of 2016 depreciation and dismantlement studies, approval of proposed depreciation rates and annual dismantlement accruals and Plant Smith Units 1 and 2 regulatory asset amortization by Gulf Power Company, Docket No. 160170-EI

Dear Ms. Stauffer:

Attached is the Direct Testimony and Exhibits of Gulf Power Company Witness Dane A. Watson.

(Document 20 of 29)

Sincerely,

A handwritten signature in blue ink that reads "Robert L. McGee, Jr.".

Robert L. McGee, Jr.  
Regulatory & Pricing Manager

**BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION**

**DOCKET NO. 160186-EI**



**Gulf Power**

**TESTIMONY AND EXHIBIT  
OF  
DANE A. WATSON**

1 GULF POWER COMPANY

2 Before the Florida Public Service Commission  
3 Prepared Direct Testimony of  
4 Dane A. Watson  
5 Docket No. 160186-EI  
6 In Support of Rate Relief  
7 Date of Filing: October 12, 2016

8 **I. POSITION, QUALIFICATIONS, AND PURPOSE**

9 Q. Please state your name and business address.

10 A. My name is Dane Watson. My business address is 1410 Avenue K, Suite  
11 1105B, Plano, TX 75074.

12 Q. What is your position?

13 A. I am the Managing Partner in Alliance Consulting Group (Alliance).

14 Q. What are your responsibilities as Managing Partner?

15 A. As the Managing Partner of Alliance, I am responsible for performing and  
16 defending depreciation studies for clients across the United States in a  
17 variety of regulatory proceedings. My duties include the assembly and  
18 analysis of historical and simulated data, conducting field reviews,  
19 determining service life and net salvage estimates, calculating annual  
20 depreciation, presenting recommended depreciation rates to utility  
21 management, and supporting such rates before regulatory bodies. I have  
22 performed more than 150 depreciation studies in my career, appeared in  
23 more than 125 cases, and testified before 30 regulatory bodies as an expert  
24 witness on the subject of depreciation.  
25

1 Q. Please state your prior work experience and responsibilities.

2 A. Since graduating from college in 1985, I have worked in the areas of  
3 depreciation and valuation. I founded Alliance in 2004, and I am responsible  
4 for conducting depreciation, valuation, and certain other accounting-related  
5 studies for utilities in various regulated industries.

6

7 My prior employment from 1985 to 2004 was with Texas Utilities and  
8 successor companies (TXU). During my tenure with TXU, I was responsible  
9 for, among other things, conducting valuation and depreciation studies for the  
10 domestic TXU companies. During that time, in addition to my depreciation  
11 responsibilities, I also served as Manager of Property Accounting Services and  
12 Records Management.

13

14 Q. What is your educational background?

15 A. I hold a Bachelor of Science degree in Electrical Engineering from the  
16 University of Arkansas at Fayetteville and a Master's Degree in Business  
17 Administration from Amberton University. I am a registered Professional  
18 Engineer in the State of Texas.

19

20 Q. Do you hold any special certification as a depreciation expert?

21 A. Yes. The Society of Depreciation Professionals (the Society) has established  
22 national standards for depreciation professionals. The Society administers an  
23 examination and has certain required qualifications to become certified in this  
24 field. I met all requirements and have become a Certified Depreciation  
25 Professional (CDP).

1 Q. Please describe your other professional activities.

2 A. I have twice been Chair of the Edison Electric Institute (EEI) Property  
3 Accounting and Valuation Committee and have been Chairman of EEI's  
4 Depreciation and Economic Issues Subcommittee. I am a Senior Member of  
5 the Institute of Electrical and Electronics Engineers (IEEE) and have held  
6 numerous offices on the Executive Board of the Dallas Section of IEEE as well  
7 as National and Worldwide offices. I have served as President of the Society  
8 of Depreciation Professionals twice, most recently in 2015.

9

10 Q. Have you previously testified before state and/or federal regulatory  
11 commissions?

12 A. Yes. I have testified before numerous state and federal agencies in my 30  
13 year career in performing depreciation studies. I have conducted depreciation  
14 studies, filed written testimony, and/or testified before the commissions  
15 identified in Exhibit DAW-3.

16

17 Q. What was your responsibility and participation in the conduct of the  
18 Depreciation Rate Study (the Study) filed on July 14, 2016, and corrected on  
19 September 20, 2016, for Gulf Power Company (Gulf or the Company)?

20 A. I was personally responsible for, participated in, and directed all aspects of the  
21 work performed by Alliance resulting in the recommendations contained in  
22 Exhibit DAW-1.

23

24

25

1 Q. What is the purpose of your direct testimony?

2 A. The purpose of my direct testimony is to: (1) discuss the recent depreciation  
3 study conducted for Gulf's electric depreciable assets based on plant and  
4 reserve balances as of December 31, 2016; and (2) support and justify the  
5 recommended depreciation rates for the Company's assets.

6

7 Q. Are you sponsoring any exhibits?

8 A. Yes. I sponsor Exhibits DAW-1, DAW-2, and DAW-3. To the best of my  
9 knowledge, the information contained in these exhibits is true and correct.

10

11 Q. Are you sponsoring any of the Minimum Filing Requirements (MFRs)  
12 submitted by Gulf?

13 A. No. However, the proposed depreciation rates will be incorporated in the MFR  
14 schedules submitted by Gulf.

15

16

17 **II. TESTIMONY STRUCTURE, DEPRECIATION DEFINITION**

18 **AND STUDY PURPOSE**

19

20 Q. How is your direct testimony structured?

21 A. My direct testimony is structured as follows:

22

23 In Section III, I explain the property included in the Study; the four-phase  
24 approach I used to conduct the Study; and the depreciation system I used for  
25 the Study.

1 In Section IV, I explain how depreciation rates are determined, including  
2 identifying the formula for depreciation rates. This portion of my direct  
3 testimony also explains and fully discusses each portion of the depreciation  
4 rate formula that is supported by my Study. Section IV is broken into the  
5 following subparts, which align with the components of the depreciation rate  
6 formula that the Study supports: (A) Depreciation Rate Formula;  
7 (B) Theoretical Reserve; (C) Net Salvage Amounts and Percentages;  
8 (D) Remaining Life Analysis; and (E) Depreciation Rates and Depreciation  
9 Accrual Rates.

10  
11 In Section V, I discuss the change in depreciation expense as a result of the  
12 proposed depreciation rates. Specifically, I explain why Gulf's depreciation  
13 expense is increasing.

14  
15 Q. What definition of depreciation have you used for the purposes of conducting a  
16 depreciation study and preparing your direct testimony?

17 A. The term "depreciation," as used herein, is considered in the accounting  
18 sense—that is, a system of accounting that distributes the cost of assets, less  
19 net salvage (if any), over the estimated useful life of the assets in a systematic  
20 and rational manner. Depreciation is a process of allocation, not valuation. In  
21 other words, depreciation expense allocates the cost of the asset, including  
22 any estimated net salvage (the negative of this is also known as net removal)  
23 necessary to remove the asset, as an ongoing cost of operations over the  
24 economic life of the asset. However, the amount allocated to any one  
25 accounting period does not necessarily represent an actual loss or decrease in

1 value that will occur during that particular period. The Company accrues  
2 depreciation on the basis of the original cost of all depreciable property  
3 included in each functional property group. On retirement, the full cost of  
4 depreciable property, less the net salvage value, is charged to the depreciation  
5 reserve.

6  
7 Q. Please generally describe the purpose of the Study.

8 A. The key functions of the Study are to: (1) determine the average service lives  
9 for Transmission, Distribution, and General Plant; (2) obtain terminal  
10 retirement dates and determine the interim retirement ratios for Production  
11 Plant; (3) determine the interim net salvage amounts for all Production Plant;  
12 (4) determine the net salvage percentages for Transmission, Distribution, and  
13 General Plant; (5) calculate the theoretical reserve of each property group  
14 based on the remaining life of the group, the total life of the group and the  
15 estimated net salvage; and (6) develop depreciation rates, including the  
16 annual depreciation accrual.

17  
18 Q. Based on the Study, what conclusions do you reach?

19 A. I conclude that the depreciation rates developed for Gulf's electric utility  
20 accounts as set forth in the Study, which is sponsored by me and included as  
21 Exhibit DAW-1, encompass the best and most recent information for  
22 calculating Gulf's depreciation expense associated with these assets.

23  
24 Based on life and net salvage parameters developed and applied to plant  
25 assets and depreciation reserve balances as of December 31, 2016, the

1 depreciation rates in the Study will result in an increase in the annual  
2 depreciation expense of approximately \$20.4 million per year. This amount  
3 was determined by comparing the depreciation expense difference between  
4 the current depreciation rates and the proposed depreciation rates as of  
5 December 31, 2016. A functional summary comparison of depreciation  
6 expense is shown in Exhibit DAW-2, Schedule 1, and a more detailed  
7 comparison is shown in Appendix B of Exhibit DAW-1.

8  
9  
10 **III. GULF'S ELECTRIC DEPRECIATION RATE STUDY**

11  
12 Q. What is the purpose of this section of your direct testimony?

13 A. In this section of my direct testimony, I testify to the property included in the  
14 Study; the four-phase approach I used to conduct the Study; and the  
15 depreciation system (straight-line method, average life group (ALG) procedure,  
16 remaining-life technique) used for the Study.

17  
18 Q. Did the Company give you any specific information for conducting the Study?

19 A. Yes. The Company gave me the following information for the Study:

20 a. Terminal retirement dates for generating stations supplied by the  
21 Company;

22 b. Historical data used to determine the interim retirement ratio and interim  
23 net salvage analysis for generating stations as of December 31, 2014;

- 1 c. Dismantlement costs associated with dismantling each generating unit  
2 for the Steam and Other Production functions which will be excluded  
3 from the Study since those amounts are determined in a separate study;  
4 d. Historical data to analyze for life and net salvage to assist in making  
5 recommendations for Transmission, Distribution, and General Plant  
6 assets based on data as of December 31, 2014; and  
7 e. Plant and reserve balances to calculate the theoretical reserves and the  
8 recommended whole life and remaining life depreciation rates, including  
9 the annual depreciation expense accrual, on forecast plant and reserve  
10 balances as of December 31, 2016.

11

12 Q. What property is included in the depreciation study?

13 A. There are five general classes, or functional groups, of depreciable property  
14 that are analyzed in the study: (1) Steam Production Plant, (2) Other  
15 Production Plant, (3) Transmission Plant, (4) Distribution Plant, and  
16 (5) General Plant property. Steam Production assets in accounts 310-316  
17 consist of generating units that use fossil fuels to produce steam to generate  
18 electricity. Other Production assets in accounts 340-346 consist of generating  
19 units (such as combustion turbines) that use natural gas to directly turn rotors  
20 to produce electricity. The Transmission Plant functional group primarily  
21 consists of lines and associated facilities used to move power from power  
22 plants and outside areas into the distribution system. The Distribution Plant  
23 functional group primarily consists of lines and associated facilities used to  
24 distribute electricity to customers of Gulf. General Plant property is plant (such  
25 as office buildings) used to support Gulf's overall operations.

1 Q. Please describe your depreciation study approach.

2 A. With the assistance of my staff, I conducted the Gulf Study in four phases as  
3 described at pages 26-28 of Exhibit DAW-1. The four phases are: Data  
4 Collection, Analysis, Evaluation, and Calculation. During the initial phase of  
5 the Study, I collected historical data through December 31, 2014 to be used in  
6 the analysis. After the data was assembled, I performed analyses to  
7 determine the life and net salvage percentage for the different property groups  
8 being studied. As part of this process, I conferred with field personnel,  
9 engineers, and managers responsible for the installation, operation, and  
10 removal of the assets to gain their input into the operation, maintenance, and  
11 salvage of the assets. The information obtained from field personnel,  
12 engineers and managerial personnel, combined with the Study results, was  
13 then evaluated to determine how the results of the historical asset activity  
14 analysis, in conjunction with the Company's expected future plans, should be  
15 applied. The final phase is calculation of depreciation rates and the theoretical  
16 reserve.

17  
18 The authoritative treatise, *Depreciation Systems*, documents the following  
19 stages of a depreciation study: "statistical analysis, evaluation of statistical  
20 analysis, discussions with management, forecast assumptions, and document  
21 recommendations".<sup>1</sup> My approach mirrors this process, and following this  
22 approach ensures that Alliance comprehensively and thoroughly projects the  
23 future expectations for the Company's assets. Exhibit DAW-1, page 28 shows  
24 Figure 1, which demonstrates the four phases of the Depreciation Rate Study  
25 conducted for Gulf.

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<sup>1</sup> W.C. Fitch and F.K. Wolf, DEPRECIATION SYSTEMS, at page 289 (Iowa State Press, 1994).

1 Q. What depreciation system did you use for the study?

2 A. The straight-line method, the ALG procedure, remaining-life technique  
3 depreciation system was used for this Study. This is the same methodology  
4 used by Gulf and approved by this Commission for the existing depreciation  
5 rates established in Docket No. 090319-EI.

6

7 Q. What is a survivor curve?

8 A. A survivor curve represents the percentage of property remaining in service at  
9 various age intervals. The Iowa Curves, the predominantly used survivor  
10 curve method in the utility industry, are the result of an extensive investigation  
11 of life characteristics of physical property made at Iowa State College  
12 Engineering Experiment Station in the first half of the prior century. Through  
13 common usage, revalidation and regulatory acceptance, the Iowa Curves have  
14 become a descriptive standard for the life characteristics of industrial property.  
15 For more detail on survivor curves see pages 13-16 of Exhibit DAW-1.

16

17 Q. How is a survivor curve used in this study?

18 A. Most property groups can be closely fitted to one Iowa Curve with a unique  
19 average service life. The blending of judgment concerning current conditions  
20 and future trends along with the matching of historical data permits the  
21 depreciation analyst to make an informed selection of an account's average  
22 service life and survivor curve. When selecting an average service life, a  
23 survivor curve is also selected. When recommending depreciation rates, the  
24 depreciation analyst selects the average service life and survivor curve that  
25 are used to compute remaining life and theoretical reserve.

1 **IV. DETERMINATION OF THE DEPRECIATION RATES**

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Q. What is the purpose of this section of your direct testimony?

A. In this section of my direct testimony, I explain how depreciation rates are determined, including identifying the formula for depreciation rates. This portion of my direct testimony also explains and fully discusses each portion of the depreciation rate formula that is supported by my Study. Section IV is broken into the following subparts, which aligns with the components of the depreciation rate formula that the Study supports: (A) The Depreciation Rate Formula; (B) Theoretical Reserve; (C) Net Salvage Amounts or Percentages; (D) Remaining Life Analysis; and (E) Depreciation Rates and Depreciation Accrual Rates.

**A. THE DEPRECIATION RATE FORMULA**

Q. How are the depreciation rates determined?

A. The formula used to derive depreciation rates calculates annual depreciation accrual amounts for each group by dividing the original cost of the asset (gross plant), less book depreciation reserve, less estimated net salvage, by the group's respective remaining life. The resulting annual accrual amounts for all depreciable property within an account are accumulated, and the total is divided by the original cost (gross plant) of all depreciable property within the account to determine the depreciation rate.

1 Q. What portion of the formula used to derive depreciation rates is supported by  
2 the depreciation rate study?

3 A. The Depreciation Rate Study determines several pieces of the overall formula  
4 used to derive depreciation rates. The portions of the formula derived by the  
5 Study are:

- 6 • Depreciation Reserve Balance: The depreciation reserve was provided by  
7 the Company with the projected gross plant balance amounts and the  
8 projected depreciation reserve as of December 31, 2016. The Study  
9 depreciation reserve balance is subtracted from gross plant.
- 10 • Net Salvage Amounts or Percentages: The Study supports the overall net  
11 salvage percentages. The Study calculates and recommends the net  
12 salvage percentages for the Production functions (interim net salvage  
13 only), Transmission, Distribution, and General Plant accounts. For these  
14 plant accounts, salvage and removal cost percentages are calculated by  
15 dividing the current cost of salvage or removal, as supported by the Study,  
16 by the original installed cost of the retired asset.
- 17 • Remaining Life: The Study supports the remaining life calculation by  
18 determining the appropriate average service lives and retirement survivor  
19 curve for each account within a functional group.
- 20 • Resulting Annual Depreciation Accrual and Depreciation Rates: As  
21 discussed above, the Study calculates the depreciation rates and the  
22 annual accrual amounts are then derived from these rates. The  
23 computation of the annual depreciation rates and annual accrual amounts  
24 is shown in Appendix A of Exhibit DAW-1.

25

1 I describe in more depth below how the Study determines each component of  
2 the formula, as well as the Study results for each component.

3

4

#### **B. THEORETICAL RESERVE**

5 Q. What purpose does the theoretical reserve serve in a depreciation study?

6 A. The theoretical reserve represents the portion of a property group's cost that  
7 would have been accrued as depreciation reserve if current life and net  
8 salvage expectations were used throughout the life of the property group for  
9 depreciation accruals. The theoretical reserve for the asset group serves as a  
10 point of comparison to the book reserve to determine if the unrecovered  
11 investment of the asset and its removal cost are over or under-accrued.

12

13 Q. How does the Study determine the theoretical reserve?

14 A. In the Study, theoretical reserves were computed based on projected plant  
15 balances as of December 31, 2016. The theoretical reserve is calculated  
16 using a reserve model that relies on a prospective concept relating future  
17 retirement and accrual patterns for property, given current life and salvage  
18 estimates. More specifically, the theoretical reserve of a property group is  
19 determined from the estimated remaining life of the group, the total life of the  
20 group, and estimated net salvage. This computation for the straight-line,  
21 remaining-life theoretical reserve ratio, which I describe in more detail on  
22 pages 23-25 of Exhibit DAW-1, involves multiplying the vintage balances  
23 within the property group by the theoretical reserve ratio for each vintage.

24

25

1 Q. Is it desirable for the depreciation reserve to conform to the theoretical  
2 reserve?

3 A. Yes. It is desirable for the depreciation reserve to conform as closely as  
4 possible to the theoretical reserve. When remaining life rates are used, the  
5 theoretical reserve provides the basis for any over or under-accrual in setting  
6 the depreciation rates at the appropriate level based on current parameters  
7 and expectations. Overall, the study found a deficit of \$139.2 million at  
8 December 31, 2016 based on the recommended life and net salvage  
9 parameters. The depreciation rates are designed to eliminate that deficit over  
10 the remaining life of the assets.

11

12 **C. NET SALVAGE AMOUNTS OR PERCENTAGES**

13 Q. What is net salvage as determined for all the company's plant assets?

14 A. While discussed more fully in the Study itself, net salvage is the difference  
15 between the gross salvage (what the asset was sold for) and the cost of  
16 removal (COR) (cost to remove and dispose of the asset). If the COR  
17 exceeds gross salvage, net salvage is negative. Some plant assets can  
18 experience significant negative removal cost percentages due to the amount of  
19 removal cost and the timing of any capital additions versus the retirement.

20

21 Salvage and removal cost percentages are calculated by dividing the current  
22 cost of salvage or removal by the original installed cost of the assets retired.

23

24

25

1 Q. How is net salvage determined for Steam and Other Production Plant in the  
2 Study?

3 A. As discussed above, the Study uses the interim net salvage for each  
4 generating unit. An interim net salvage percentage is calculated and  
5 represents the estimated removal cost for interim retirements that will occur  
6 annually over the remaining life of each generating unit. The interim net  
7 salvage percentages proposed for Production plant accounts are shown in  
8 Exhibit DAW-2, Schedule 2 and in Appendix D-2 of Exhibit DAW-1. The  
9 dismantlement cost (terminal cost of removal) estimates for each generating  
10 unit are not included since those amounts are determined in a separate study.  
11 The Study separately calculates the net salvage percentages for the  
12 Transmission, Distribution, and General Plant accounts.

13  
14 Q. How did you determine the net salvage percentages for each asset group in  
15 Transmission, Distribution, and General Plant?

16 A. To determine the appropriate net salvage percentages for each account, I start  
17 by using an industry-standard method that divides the current cost of salvage  
18 or removal by the original installed cost of the assets retired. However,  
19 judgment also is applied to select a net salvage percentage that represents the  
20 future expectations for each account. To apply this judgment, historical  
21 salvage and removal data by functional group is compiled to determine values  
22 and trends in gross salvage and removal cost. The functional data for  
23 retirements, gross salvage, and COR covered the period from 1981-2014 and  
24 is detailed in the Study. Moving averages are calculated with this data, with  
25 the intent to remove timing differences between retirement and salvage and

1 removal cost; those moving averages are analyzed over varying periods up to  
2 34 years. These calculations are found in Appendix E of Exhibit DAW-1.

3

4 Q. Is it not sufficient to analyze historical data to form your life and net salvage  
5 estimates?

6 A. No. Historic life and salvage data is one factor to consider in making life and  
7 net salvage recommendations, but it is crucial to incorporate future trends,  
8 changes in equipment and Company-specific operational information before  
9 finally making life and net salvage recommendations. Once all the calculations  
10 and data are prepared, I take into account my judgment, Company  
11 expectations and trends to determine the appropriate net salvage  
12 percentages. A comparison of the approved and proposed net salvage  
13 percentages are shown in Exhibit DAW-2, Schedule 3 and in Appendix C of  
14 Exhibit DAW-1.

15

16 Q. Please describe some of the changes in the net salvage percentages for the  
17 various accounts.

18 A. The detailed analysis of each account is described fully in Exhibit DAW-1,  
19 pages 55-110. Net salvage is trending toward higher negative net salvage due  
20 to the increased cost of labor, safety, and environmental compliance related to  
21 retiring utility assets and the longer lives experienced for many assets. For  
22 Gulf, net salvage for 12 accounts decreased (became more negative) while  
23 the remaining 16 accounts remained unchanged. Examples of some of the  
24 changes in net salvage are:

25

- 1           • The most significant decreases of 30 percent or more (more negative) in  
2 net salvage percentages were in: Transmission Account 355, Poles &  
3 Fixtures, which decreased from negative 40 percent to negative 75  
4 percent; Distribution Account 365, Overhead Conductors & Devices, which  
5 decreased from negative 20 percent to negative 50 percent; and  
6 Distribution Account 369.1, Overhead Services, which decreased from  
7 negative 45 percent to negative 75 percent.
- 8           • Two other Distribution Accounts 369.2, Underground Services and 373,  
9 Street Lighting had a decrease from negative 10 percent to negative 20  
10 percent net salvage. Factors impacting removal costs are discussed in the  
11 Study. See pages 53-54 of Exhibit DAW-1.

12

13

#### **D. REMAINING LIFE ANALYSIS**

14

Q. Does the study conduct life analysis for Production units?

15

A. Yes. The terminal retirement dates are inputs used in the Study to derive the average remaining life depreciation rate for generation. These terminal retirement dates were provided by the Company to me. These dates are consistent with current operating expectations, environmental legislation, and resource plans. Interim retirement ratios are also inputs used in the Study to derive the average remaining life depreciation rate for generation assets.

16

17

18

19

20

21

22

Q. Can you explain interim retirement ratios and what purpose they serve in the Study?

23

24

A. Yes. As detailed in the Study, interim retirement ratios were used to model the retirement of individual assets within primary plant accounts for each

25

1 generating unit prior to the terminal retirement of the facility. The life span  
2 procedure assumes all assets are depreciated (straight-line) for the same  
3 number of periods and will retire at the same time (the terminal retirement  
4 date). Adding interim retirement ratios to this procedure reflects the fact that  
5 some of the assets at a power plant will not survive to the end of the life of the  
6 facility and should be depreciated (straight-line) more quickly and retired  
7 earlier than the terminal life of the overall facility. By applying interim  
8 retirements, recognition is given to the obvious fact that generating units will  
9 have retirements of depreciable property before the end of their lives. The  
10 interim retirement methodology reflected in the Study was used in the  
11 development of the depreciation rates approved in Docket No. 090319-EI and  
12 in the calculation of the Company's proposed Production depreciation rates.  
13 The interim retirement ratios proposed for Production accounts are shown in  
14 Exhibit DAW-2, Schedule 4 and Exhibit DAW-1 on Appendix D-2.

15  
16 Q. What method does the study use to analyze historical data for Transmission,  
17 Distribution, and General Plant to determine life characteristics?

18 A. All Transmission, Distribution, and General Plant accounts were analyzed  
19 using either the actuarial analysis (retirement rate method) or the simulated  
20 plant record balances (SPR) method to estimate the life of the property in each  
21 account. In much the same manner as human mortality is analyzed by  
22 actuaries, depreciation analysts use models of property mortality  
23 characteristics that have been validated in research and empirical applications.  
24  
25

1 Q. How did you determine the average service lives for Transmission,  
2 Distribution, and General Plant?

3 A. As noted above, actuarial or SPR analysis was used to determine the  
4 appropriate average service lives for each account in Transmission,  
5 Distribution, and General. Graphs and tables supporting the analysis and the  
6 chosen Iowa Curves used to determine the average service lives for analyzed  
7 accounts are found in the Determination of the Lives section of Exhibit DAW-1,  
8 pages 55-110. A summary comparison of the approved and proposed  
9 depreciable lives is shown in Exhibit DAW-2, Schedule 5 and in Appendix C of  
10 Exhibit DAW-1.

11  
12 Q. Please describe some of the changes in the average service lives for the  
13 various Transmission, Distribution, and General accounts.

14 A. For Transmission, Distribution, and General Accounts, there are 20 accounts  
15 with increasing lives; four accounts with decreasing lives; and four accounts  
16 where there is no change. Examples of some of the changes in average  
17 service lives for Transmission, Distribution, and General Plant are as follows:

- 18 • The largest increases, greater than five years, in life were in:
- 19 ○ Distribution Account 367 Underground Conductors & Devices, which  
20 increased by nine years;
  - 21 ○ Distribution Accounts 365 Overhead Conductors & Devices, 366  
22 Underground Conduit, and 369.1 Overhead Services, all of which  
23 increased by seven years; and

24  
25



1 December 31, 2016 were used to compute the proposed depreciation accrual  
2 expense and rates.

3  
4 In the Study, calculation of the depreciation accrual rates is computed using  
5 the same methodology as was used in developing the depreciation rates  
6 approved by the Commission in Docket No. 090319-EI. The computation of  
7 accrual rates are shown in Appendix A of Exhibit DAW-1

8  
9  
10 **V. CHANGE IN DEPRECIATION EXPENSE AS A RESULT**  
11 **OF THE PROPOSED DEPRECIATION RATES**

12  
13 Q. What is the purpose of this section of your direct testimony?

14 A. In this section of my direct testimony, I discuss the change in depreciation  
15 expense as a result of the proposed depreciation rates. Specifically, I explain  
16 why Gulf's depreciation expense is increasing, as well as detail the change in  
17 depreciation expense.

18  
19 Q. Please summarize the depreciation study results with respect to depreciation  
20 changes in depreciation expense.

21 A. Based on the revised depreciation rates indicated in the Study, as applied to  
22 forecasted plant balances as of December 31, 2016, the overall change in  
23 annual depreciation expense is an increase of approximately \$20.4 million. As  
24 shown previously in Exhibit DAW-2, Schedule 1, this increase reflects an  
25 increase of \$16.2 million in Production, consisting of Steam Production of \$9.5

1 million and Other Production of \$6.8 million. The change in Steam Production  
2 is driven by the Crist Plant and the reflection of interim retirements. The  
3 change in Other Production reflects the effect of the retirement and  
4 replacement of turbines at a plant prior to the end of the life of a unit. There is  
5 an increase of \$3.7 million in Transmission, a decrease of \$141 thousand in  
6 Distribution, and an increase of \$619 thousand in General.

7  
8 There are two accounts driving the increase in the Transmission function: 353  
9 Station Equipment and 355 Poles and Fixtures. Account 353 had a decrease  
10 in life and more negative net salvage. Account 355 had a slight increase in life  
11 but experienced significant more negative net salvage. As discussed  
12 previously, changes in parameters affect the reserve position, which is evident  
13 in these two accounts.

14  
15 As shown in Exhibit DAW-1, Appendix F, the theoretical reserve is much  
16 higher than the book reserve, creating a deficit that is recovered over the  
17 remaining life of the account and increases the depreciation rate. Detailed  
18 Production rates by plant and account are shown in Exhibit DAW-1, Appendix  
19 A-1 and A-2. Rates by account for Transmission, Distribution, and General  
20 are shown in Exhibit DAW-1, Appendix A-3.

21  
22 Q. Mr. Watson, do you have any concluding remarks?

23 A. Yes. The Study and analysis performed under my supervision fully supports  
24 setting depreciation rates at the level I have indicated in my testimony. The  
25 Company should continue to periodically review the annual depreciation rates

1 for its property. In this way, the Company's depreciation expense will more  
2 accurately reflect its cost of operations and the rates for all customers will  
3 include an appropriate share of the capital expended for their benefit.

4  
5 The Study for Gulf's electric depreciable property for actual plant assets as of  
6 December 31, 2016 describes the extensive analysis performed and the  
7 resulting rates that are now appropriate for Company property.

8  
9 Q. Does this conclude your direct testimony?

10 A. Yes, it does.

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AFFIDAVIT

STATE OF TEXAS       )  
                                  )  
COUNTY OF COLLIN    )

Docket No. 160186-EI

Before me the undersigned authority, personally appeared Dane A. Watson, who being first duly sworn, deposes, and says that he is the Managing Partner of Alliance Consulting Group, and that the foregoing is true and correct to the best of his knowledge, information, and belief. He is personally known to me.

s/ *Dane A. Watson*  
Dane A. Watson  
Managing Partner

Sworn to and subscribed before me this 4th day of October, 2016.

*Kristen Vela*  
Notary Public, State of Texas  
Commission No. 13006927-2  
My Commission Expires 1/7/19



# Exhibit

Florida Public Service Commission  
Docket No. 160186-EI  
GULF POWER COMPANY  
Witness: Dane A. Watson  
Exhibit No. \_\_\_\_\_ DAW-1  
Page 1 of 1

Gulf Power's 2016 Depreciation Study filed on September 20, 2016 in Docket No. 160170-EI is incorporated by reference.

**Comparison of Annual Depreciation Accrual Expense**

Description	Forecast	Approved	Proposed	Difference
	Plant In Service 12/31/2016	Annual Accrual Expense	Annual Accrual Expense	
	\$	\$	\$	\$
Steam Production	2,590,372,854	80,422,152	89,873,215	9,451,063
Other Production	324,301,572	9,646,201	16,432,315	6,786,114
<b>Total Production</b>	<b>2,914,674,426</b>	<b>90,068,353</b>	<b>106,305,530</b>	<b>16,237,177</b>
Transmission	698,187,647	19,109,058	22,808,435	3,699,377
Distribution	1,247,954,522	44,976,653	44,835,531	(141,122)
General	109,707,699	3,526,782	3,267,406	(259,376)
Transportation	33,397,631	2,703,991	3,582,202	878,211
<b>Total TDG</b>	<b>2,089,247,499</b>	<b>70,316,484</b>	<b>74,493,574</b>	<b>4,177,090</b>
<b>Total Gulf Power</b>	<b>5,003,921,925</b>	<b>160,384,837</b>	<b>180,799,104</b>	<b>20,414,267</b>

<b>Interim Net Salvage</b>		<b>Proposed Interim Net Salvage</b>
<b>Account</b>	<b>Description</b>	
<b>All Steam Units Except Scherer</b>		
311	Structures and Improvement	-10%
312	Boiler Plant Equipment	-30%
314	Turbogenerator Equipment	-30%
315	Accessory Electric Equipment	-10%
316	Miscellaneous Power Plant Equipment	-5%
<b>Scherer</b>		
311	Structures and Improvement	-10%
312	Boiler Plant Equipment	-30%
314	Turbogenerator Equipment	-30%
315	Accessory Electric Equipment	-10%
316	Miscellaneous Power Plant Equipment	-5%
<b>Combustion Turbines</b>		
341	Structures and Improvements	-5%
342	Fuel Holders	-5%
343	Prime Movers	-5%
344	Generators	-5%
345	Accessory Electric Equipment	-5%
346	Miscellaneous Power Plant Equipment	-5%
<b>Combined Cycle Turbines</b>		
341	Structures and Improvements	-5%
342	Fuel Holders	-5%
343	Prime Movers	-5%
344	Generators	-5%
345	Accessory Electric Equipment	-5%
346	Miscellaneous Power Plant Equipment	-5%

**Comparison of Net Salvage Percentages**

<b>Account</b>	<b>Description</b>	<b>Approved Net Salvage %</b>	<b>Proposed Net Salvage %</b>	<b>Difference in Net Salvage %</b>
<b>TRANSMISSION PLANT</b>				
350	Easements	0	0	0
352	Structures and Improvements	-5	-5	0
353	Station Equipment	-5	-10	-5
354	Towers and Fixtures	-20	-25	-5
355	Poles and Fixtures	-40	-75	-35
356	Overhead Conductors and Devices	-30	-30	0
358	Underground Conductors and Devices	0	0	0
359	Roads and Trails	0	0	0
<b>DISTRIBUTION PLANT</b>				
360.2	Easements	0	0	0
361	Structures and Improvements	-5	-5	0
362	Station Equipment	-5	-10	-5
364	Poles and Fixtures	-75	-75	0
365	Overhead Conductors and Devices	-20	-50	-30
366	Underground Conduit	0	0	0
367	Underground Conductors and Devices	-8	-15	-7
368	Line Transformers	-20	-22	-2
369.1	Overhead Services	-45	-75	-30
369.2	Underground Services	-10	-20	-10
370	Meters	10	10	0
370.1	Meters - AMI	0	0	0
373	Street Lighting and Signal Systems	-10	-20	-10
<b>GENERAL PLANT</b>				
390	Structures and Improvements	-5	-5	0
396	Power Operated Equipment	20	20	0
397	Communications Equipment	0	0	0
<b>TRANSPORTATION EQUIPMENT</b>				
392.1	Automobiles	15	15	0
392.2	Light Trucks	12	5	-7
392.3	Heavy Trucks	15	15	0
392.4	Trailers	12	8	-4

**Proposed Interim Retirement Ratios**

<b>Account</b>	<b>Description</b>	<b>Proposed Interim Retirement Ratio</b>
All Units Except Scherer		
311	Structures and Improvement	0.21%
312	Boiler Plant Equipment	0.75%
314	Turbogenerator Equipment	1.08%
315	Accessory Electric Equipment	0.53%
316	Miscellaneous Power Plant Equipment	0.56%
Scherer		
311	Structures and Improvement	0.21%
312	Boiler Plant Equipment	0.75%
314	Turbogenerator Equipment	1.08%
315	Accessory Electric Equipment	0.53%
316	Miscellaneous Power Plant Equipment	0.56%
Combustion Turbines		
341	Structures and Improvements	2.20%
342	Fuel Holders	1.30%
343	Prime Movers	3.00%
344	Generators	0.25%
345	Accessory Electric Equipment	1.50%
346	Miscellaneous Power Plant Equipment	1.80%
Combined Cycle Turbines		
341	Structures and Improvements	2.20%
342	Fuel Holders	1.30%
343	Prime Movers	3.00%
344	Generators	0.25%
345	Accessory Electric Equipment	1.50%
346	Miscellaneous Power Plant Equipment	1.80%

**Comparison of Life Parameters**

Account	Description	Existing		Proposed		Change in Life	
		Curve	ASL	Curve	ASL		
<b>TRANSMISSION PLANT</b>							
1	350	Easements	SQ	60	R5	65	5
2	352	Structures & Improvements	R4	50	R3	55	5
3	353	Station Equipment	S0	45	S0	40	-5
4	354	Towers and Fixtures	R5	50	R4	55	5
5	355	Poles and Fixtures	S0	38	L0.5	40	2
6	356	Overhead Conductors & Devices	R2	50	R1	50	0
7	358	Underground Conductors & Devices	R3	45	R4	50	5
8	359	Roads and Trails	SQ	50	SQ	55	5
<b>DISTRIBUTION PLANT</b>							
9	360.2	Easements	SQ	50	SQ	55	5
10	361	Structures & Improvements	R3	48	R2.5	50	2
11	362	Station Equipment	R1.5	45	R1	38	-7
12	364	Poles and Fixtures	R1	34	R0.5	33	-1
13	365	Overhead Conductors & Devices	R1	38	R1	45	7
14	366	Underground Conduit	R3	60	R5	67	7
15	367	Underground Conductors & Devices	S3	32	R2	41	9
16	368	Line Transformers	S0	30	R0.5	33	3
17	369.1	Overhead Services	R1	35	R1	42	7
18	369.2	Underground Services	R1	40	R2.5	45	5
19	370	Meters	R1	33	R1	16	-17
20	370.1	Meters - AMI	R1	15	R1	15	0
21	373	Street Lighting & Signal Systems	L1	20	R0.5	23	3
<b>GENERAL PLANT</b>							
22	390	Structures & Improvements	S1.5	45	R1.5	46	1
23	396	Power Operated Equipment	R5	15	R4	16	1
24	397	Communications Equipment	S1	16	L1.5	16	0
<b>Transportation Equipment</b>							
25	392.1	Automobiles	N/A	7	R4	7	0
26	392.2	Light Trucks	L3	10	R4	12	2
27	392.3	Heavy Trucks	L4	11	L4	13	2
28	392.4	Trailers	S1.5	18	L2.5	22	4

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Alabama	FERC	ER16-2313-000	SEGCO	2016	Electric Depreciation Study
Alabama	FERC	ER16-2312-000	Alabama Power Company	2016	Electric Depreciation Study
Michigan	Michigan Public Service Commission	U-18127	Consumers Energy	2016	Natural Gas Depreciation Study
Iowa	Iowa Utilities Board	RPU-2016-0003	Liberty-Iowa	2016	Natural Gas Depreciation Study
Illinois	Illinois Commerce Commission	GRM #16-208	Liberty-Illinois	2016	Natural Gas Depreciation Study
Kentucky	FERC	RP16-097-000	KOT	2016	Natural Gas Depreciation Study
Alaska	Regulatory Commission of Alaska	U-16-067	Alaska Electric Light and Power	2016	Generating Unit Depreciation Study
Florida	Florida Public Service Commission	160170-EI	Gulf Power	2016	Electric Depreciation Study
Arizona	Arizona Corporation Commission	G-01551A-16-0107	Southwest Gas	2016	Gas Depreciation Study
Texas	Public Utility Commission of Texas	45414	Sharyland	2016	Electric Depreciation Study

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Colorado	Colorado Public Utilities Commission	16A-0231E	Public Service of Colorado	2016	Electric Depreciation Study
Multi-State NE US	FERC	16-453-000	Northeast Transmission Development, LLC	2015	Electric Depreciation Study
Arkansas	Arkansas Public Service Commission	15-098-U	CenterPoint Arkansas	2015	Gas Depreciation Study and Cost of Removal Study
New Mexico	New Mexico Public Regulation Commission	15-00296-UT	SPS NM	2015	Electric Depreciation Study
Tennessee	Tennessee Regulatory Authority	14-00146	Atmos Energy Corporation	2015	Natural Gas Depreciation Study
New Mexico	New Mexico Public Regulation Commission	15-00261-UT	Public Service Company of New Mexico	2015	Electric Depreciation Study
Kansas	Kansas Corporation Commission	16-ATMG-079-RTS	Atmos Kansas	2015	Gas Depreciation Study
Texas	Public Utility Commission of Texas	44704	Entergy Texas	2015	Electric Depreciation Study
Alaska	Regulatory Commission of Alaska	U-15-089	Fairbanks Water and Wastewater	2015	Water and Waste Water Depreciation Study

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
Arkansas	Arkansas Public Service Commission	15-031-U	Source Gas Arkansas	2015	Underground Storage Gas Depreciation Study
New Mexico	New Mexico Public Regulation Commission	15-00139-UT	SPS NM	2015	Electric Depreciation Study
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

<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	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	14AL-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

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
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

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
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

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
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

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
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

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
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
Multi State	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

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
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

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
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

<b>Asset Location</b>	<b>Commission</b>	<b>Docket (If Applicable)</b>	<b>Company</b>	<b>Year</b>	<b>Description</b>
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

<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	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

<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	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 Depreciation 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