

BEFORE THE CORPORATION COMMISSION OF OKLAHOMA

APPLICATION OF OKLAHOMA GAS §
AND ELECTRIC COMPANY, AN §
OKLAHOMA CORPORATION, FOR §
AN ADJUSTMENT IN ITS RATES § CAUSE NO. PUD 201100087
AND CHARGES AND TERMS AND §
CONDITIONS OF SERVICE FOR §
ELECTRIC SERVICE IN THE STATE §
OF OKLAHOMA §

Responsive Testimony

of

Jacob Pous

on behalf of

**Oklahoma Industrial Energy Consumers, Wal-Mart Stores, LP,
And Sam's East, Inc.**

**Diversified Utility Consultants Inc.
1912 West Anderson Lane, Suite 202
Austin, TX 78757**

November 9, 2011

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ACRONYMS AND DEFINED TERMS

2008 Study	Gannett Fleming's Depreciation Study
AEP	American Electric Power Company
AICPA	American Institute of Certified Public Accountants
ALG	Average Life Group
CFR	Code of Federal Regulations
Commission	Oklahoma Corporation Commission
Company	Oklahoma Gas & Electric Company
DUCI	Diversified Utility Consultants, Inc.
EIA	Energy Information Administration
FERC	Federal Energy Regulatory Commission
IRP	Integrated Resource Plan
OCC	Oklahoma Corporation Commission
OGE	Oklahoma Gas & Electric Company
OIEC	Oklahoma Industrial Energy Consumers
OLT	Original Life Table
PSO	Public Service Company of Oklahoma

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1 **SECTION I: INTRODUCTION**

2

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

4 A. My name is Jacob Pous and my business address is 1912 W Anderson Lane, Suite 202,
5 Austin, Texas 78757.

6

7 **Q. WHAT IS YOUR OCCUPATION?**

8 A. I am a principal in the firm of Diversified Utility Consultants, Inc. (“DUCI”). A copy of
9 my qualifications appears as Appendix A.

10

11 **Q. PLEASE DESCRIBE DIVERSIFIED UTILITY CONSULTANTS, INC.**

12 A. DUCI is a consulting firm located in Austin, Texas with an international client base. The
13 personnel of DUCI provide engineering, accounting, economic, and financial services to
14 its clients. DUCI provides utility consulting services to municipal governments with
15 utility systems, to end-users of utility services, and to regulatory bodies such as state
16 public service commissions. DUCI provides complete rate case analyses, expert
17 testimony, negotiation services, and litigation support to clients in electric, gas,
18 telephone, water, sewer, and cable utility matters.

19

20 **Q. HAVE YOU PREVIOUSLY TESTIFIED IN PUBLIC UTILITY PROCEEDINGS?**

21 A. Yes. Appendix A also includes a list of proceedings in which I have previously presented
22 testimony. In addition, I have been involved in numerous utility rate proceedings that

1 resulted in settlements before testimony was filed. In total, I have participated in well
2 over 400 utility rate proceedings in the United States and Canada. Also worthy of note is
3 that I have testified on behalf of the staff of five different state regulatory commissions
4 and one Canadian regulator.

5
6 **Q. WHAT IS YOUR PROFESSIONAL BACKGROUND?**

7 A. I am a registered professional engineer. I am registered to practice as a Professional
8 Engineer in the State of Texas, as well as numerous other states.

9
10 **Q. ON WHOSE BEHALF ARE YOU PROVIDING THIS TESTIMONY?**

11 A. My recommendations are made on behalf of the Oklahoma Industrial Energy Consumers
12 (“OIEC”), Wal-Mart Stores, LP, and Sam’s East, Inc.

13
14 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

15 A. I have been retained to address the reasonableness of Oklahoma Gas & Electric
16 Company’s (“OGE” or “Company”) proposal before the Oklahoma Corporation
17 Commission (“OCC” or “Commission”) to change its depreciation rates in a manner that
18 will result in approximately \$188 million of annual depreciation expense based on plant
19 as of December 31, 2009. The Company’s request is based on a 2008 depreciation study
20 (“2008 Study”) prepared on behalf of the Company by Gannett Fleming, Inc. Based on
21 my review of the Gannett Fleming study, responses to information requests, and my
22 experience and judgment, I conclude that the Company’s depreciation request is not well-
23 supported and results in excessive depreciation expense. Further, my review has been
24 limited to Production plant investment as well as investment in Account 353 –
25 Transmission Station Equipment. These particular areas that I have investigated reflect
26 \$88.4 million of annual depreciation expense, or 47% of the Company’s depreciation
27 expense request based on plant as of December 31, 2009. A brief summary of my
28 testimony follows:

- 29
- 30 • **Production Plant Life Analysis.** The Company has proposed
31 various projected retirement dates for its various generating
32 facilities. The Company has failed not only to demonstrate the
reasonableness of its proposed retirement dates, and thus the

1 overall life span of each generating unit, but has also failed to
2 explain the inconsistency between its depreciation study and its
3 most recent Integrated Resource Plans (“IRP”). As determined by
4 the Federal Energy Regulatory Commission (“FERC”) and other
5 state regulators, it is inappropriate to attempt to recover capital
6 investments in generating stations on an accelerated basis
7 compared to the assumed life spans reflected in a utility’s actual
8 planning documents. Correction of the artificially short life spans
9 for coal, combined-cycle, and wind farm generating investment is
10 required.

- 11 • **Interim Retirements.** Interim retirements represent those items of
12 investment that can be expected to retire and be replaced prior to
13 the final termination date of the Company’s various generating
14 units. Each interim retirement results in a reduction to the dollar-
15 weighted remaining life of each generating plant and increases
16 depreciation expense to recover the resulting shorter average
17 service lives for certain components of Production plant
18 investment. The Company has relied on an inappropriate method
19 as well as inappropriate results from such method to arrive at
20 excessive levels of forecasted interim retirements. Recalculation of
21 the impact of interim retirements based on a more traditional and
22 appropriate method previously approved by this Commission
23 results in a more appropriate estimation of the impact of future
24 interim retirements and a longer dollar-weighted remaining life for
25 the Company’s various generating units.
- 26 • **Net Salvage.** The Company has proposed an excessively negative
27 level of net salvage for its largest Transmission plant account,
28 Account 353 – Transmission Station Equipment. The Company’s
29 proposal exceeds the most negative value reported by Gannett
30 Fleming elsewhere in the industry. The proposal is based on a
31 simple mechanical average of an 18-year database assuming that
32 the values are both appropriate and representative of the future.
33 The Company’s assumptions are not only unsupported and
34 unjustified, but also result in a value that is not representative of
35 more current trends in the industry or other facts. Adoption of a
36 conservative negative 5% net salvage estimate reduces annual
37 depreciation expense by approximately \$1.5 million based on plant
38 as of December 31, 2009.
- 39 • **Combined Impact.** The combined and interactive impact between
40 Production life spans and Production interim retirements, along
41 with the net salvage adjustment for Transmission Account 353
42 results in a reduction of \$16,942,852 in annual depreciation
43 expense based on plant as of December 31, 2009.

1 **SECTION II: DEPRECIATION**

2

3 **Q. WHAT IS DEPRECIATION?**

4 A. There are two commonly-cited definitions of depreciation. The first comes from FERC:¹

5

6 ‘Depreciation,’ as applied to depreciable plant, means the loss in service
7 value not restored by current maintenance, incurred in connection with the
8 consumption or prospective retirement of electric plant in the course of
9 service from causes which are known to be in current operation and
10 against which the utility is not protected by insurance. Among the causes
11 to be given consideration are wear and tear, decay, action of the elements,
12 inadequacy, obsolescence, changes in the art, changes in demand and
13 requirements of public authorities.

14

15 The second definition, from the American Institute of Certified Public Accountants
16 (“AICPA”), is similar:

17

18 Depreciation accounting is a system of accounting which aims to
19 distribute the cost or other basic value of tangible capital assets, less
20 salvage (if any) over the estimated useful life of the unit (which may be a
21 group of assets) in a systematic and rational manner. It is a process of
22 allocation, not of valuation. Depreciation for the year is a portion of the
23 total charge under such a system that is allocated to the year. Although the
24 allocation may properly take into account occurrences during the year, it is
25 not intended to be a measurement of the effect of all such occurrences.

26

¹ Title 18 of the Code of Federal Regulations (“CFR”) Part 101, Definition 12.

1 **Q. WHAT ARE THE TWO GENERAL FORMULAS USED IN DETERMINING**
2 **DEPRECIATION RATES?**

3 A. The whole life and the remaining life technique are the most commonly used formulas.
4 The whole life technique is as follows:²

$$\text{Depreciation Rate (\%)} = \left[\frac{\frac{(\text{Original Cost} - \text{Net Salvage})}{\text{Average Service Life}}}{\text{Original Cost}} \right]$$

5

$$\text{Depreciation Rate (\%)} = \left[\frac{\frac{\text{Original Cost} - \text{Accumulated Provision For Depreciation} - \text{Net Salvage}}{\text{Average Service Life}}}{\text{Original Cost}} \right]$$

6
7 The two formulas should equal each other when the difference between the theoretical
8 reserve and the actual APFD is recovered over the remaining life of the investment under
9 the whole life technique.

10
11 **Q. ARE THERE ADDITIONAL CONSIDERATIONS IN DEPRECIATION BEYOND**
12 **THE DEFINITIONS?**

13 A. Yes. The definitions provide only a general outline of the overall utility depreciation
14 concept. In order to arrive at a depreciation-related revenue requirement in a rate
15 proceeding, a depreciation system must be established.

16
17 **Q. WHAT IS A DEPRECIATION SYSTEM?**

18 A. A depreciation system constitutes the method, procedure, and technique employed in the
19 development of depreciation rates.

20
21 **Q. BRIEFLY DESCRIBE WHAT IS MEANT BY “METHOD.”**

22 A. “Method” identifies whether a straight-line, liberalized, compound interest, or other type
23 of calculation is being performed. The straight-line method is normally employed for
24 utility depreciation proceedings.

² A theoretical depreciation reserve calculation is developed and compared to the actual accumulated provision for depreciation in conjunction with the whole life technique. If the differential is significant, an amortization of the differential for some period of time may be recommended.

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Q. BRIEFLY DESCRIBE WHAT IS MEANT BY “PROCEDURE.”

A. “Procedure” identifies a calculation approach or grouping. For example, procedures can reflect the grouping of only a single item, items by vintage (year of addition), items by broad group or total grouping, or equal life groupings. The average life group (“ALG”) procedure is used by the vast majority of utilities.

Q. BRIEFLY DESCRIBE WHAT IS MEANT BY “TECHNIQUE.”

A. There are two main categories of techniques with various sub-groupings: the whole life technique and the remaining life technique. The whole life technique simply reflects calculation of a depreciation rate based on the whole life (*e.g.*, a 10-year life would imply a 10% depreciation rate over the life of the plant). The remaining life technique recognizes that depreciation is a forecast or estimation process that is never precisely accurate and that requires true-ups in order to recover exactly 100% of what a utility is entitled to over the entire life of the investment. Therefore, as time passes, the remaining life technique attempts to recover the remaining unrecovered balance over the remaining life or other period of time. Most utilities rely on a remaining life technique in utility rate matters.

Q. DO THE METHODS, PROCEDURES, AND TECHNIQUES INTERACT WITH ONE ANOTHER?

A. Yes. Different depreciation rates will result depending on what combination of method, procedure, and technique is employed. Differences will occur even when beginning with the same average service life and net salvage values.

Q. WHAT IS NET SALVAGE?

A. Net salvage is the value obtained from retired property (the gross salvage) less the cost of removal. Net salvage can be either positive, in cases where gross salvage exceeds cost of removal, or negative, in cases where cost of removal is greater than gross salvage.

1 **Q. HOW DOES NET SALVAGE IMPACT THE CALCULATION OF**
2 **DEPRECIATION?**

3 A. The intent of the depreciation process is to allow the Company to recover 100% of
4 investment less net salvage. Therefore, if net salvage is a positive 10%, then the utility
5 should only recover 90% of its investment through annual depreciation charges, under the
6 theory that it will recover the remaining 10% through net salvage at the time the asset
7 retires ($90\% + 10\% = 100\%$). Alternatively, if net salvage is a negative 10%, then the
8 utility should be allowed to recover 110% of its investment through annual depreciation
9 charges so that the negative 10% net salvage that is expected to occur at the end of the
10 property's life will still leave the utility whole ($110\% - 10\% = 100\%$).

11

12 **SECTION III: PRODUCTION PLANT LIFE SPANS**

13

14

15 **Q. WHAT IS THE ISSUE IN THIS PORTION OF YOUR TESTIMONY?**

16 A. This portion of my testimony addresses the appropriate life spans for the Company's
17 various generating units. In particular, it will address the overall lack of support and
18 justification for the Company's proposals, the internal inconsistency of the proposals with
19 the Company's IRP, and the need to extend life spans.

20

21 **Q. WHAT IS THE LIFE SPAN FOR A GENERATING UNIT?**

22 A. A life span for a generating unit sets the time period during which a unit is expected to
23 provide service. For example, if a generating unit were placed into service on January 1,
24 1980, and had a 60-year life span, it would have a projected retirement date of December
25 31, 2039. The life span does not change based on the movement of a generating unit from
26 providing base load service to standby service. The issue is the date of installation
27 through the date of retirement.

28

1 **Q. PLEASE EXPLAIN THE SIGNIFICANCE OF SETTING AN APPROPRIATE**
2 **LIFE SPAN.**

3 A. In determining the depreciation rate and thus depreciation expense for a generating unit,
4 it is necessary to establish the time frame over which customers are expected to receive
5 benefits and, in return, pay for such benefits. As previously noted, the depreciation
6 formula includes the original cost less net salvage less the accumulated provision for
7 depreciation, all divided by the remaining life. Thus, if the remaining life is set at too
8 short a time frame, current customers overpay, and vice versa. Failure to set a proper
9 estimated retirement date for a generating unit creates intergenerational inequities and
10 fails to comply with the matching principle of ratemaking. It is important to note that
11 depreciation in this case is not a measure of value as it relates to the type of service being
12 provided over time (*i.e.*, base, intermediate, peaking, or reserve).
13

14 **Q. DOES THE COMPANY'S PRODUCTION PLANT DEPRECIATION EXPENSE**
15 **REQUEST REPRESENT A SIGNIFICANT REVENUE REQUIREMENT?**

16 A. Yes. The Company requests \$81.4 million for annual Production plant depreciation
17 expense based on plant as of December 31, 2009.³ This level of requested depreciation
18 expense is dependent on the Company's proposed life spans, interim retirement levels,
19 and net salvage values adopted for generating units.
20

21 **Q. WHAT IS THE PROPOSED LEVEL OF DEPRECIATION EXPENSE BY TYPE**
22 **OF GENERATION?**

23 A. The Company's proposed \$81.4 million of annual Production plant depreciation expense
24 based on plant as of December 31, 2009 is comprised of the following components:
25

Generation Type	Annual Expense⁴
Gas-Fired	\$10,415,624
Coal-Fired	\$24,905,113
Other – Gas	\$19,952,319
Other – Wind	\$26,142,810
Total	\$81,415,866

³ 2008 Study, pages III-4 through III-9.

⁴ *Id.*, pages III-4 through III-9.

1
2 **Q. WHAT DOES THE COMPANY PROPOSE FOR LIFE SPANS FOR ITS**
3 **VARIOUS TYPES OF GENERATION?**

4 A. The Company proposes the following life spans by type of generation:
5

Generation Type	Life Spans⁵
Gas-Fired	53 to 66 years
Coal-Fired	54 to 57 years
Other – Gas	27 to 45 years
Other – Wind	25 years

6
7 **Q. DO THE CURRENT PROPOSED LIFE SPANS REPRESENT A CHANGE FROM**
8 **THE PRIOR DEPRECIATION STUDY?**

9 A. Yes. The Company now proposes longer life spans for 9 generating units than what it
10 proposed in the prior depreciation study.⁶ The Company’s extension of life spans
11 represents a partial admission of its prior failure to accurately or reasonably estimate the
12 useful lives of its generating units.
13

14 **Q. WHAT IS THE COMPANY’S BASIS FOR ITS PROPOSED LIFE SPANS?**

15 A. Basically nothing. When the Company was specifically requested to “provide each item
16 of information relied upon ... to support the life spans utilized for each of the Company’s
17 generating units” and to “further provide a detailed narrative identifying how each item
18 of information was relied upon in conjunction with other items of information to arrive at
19 the proposed life spans,” it responded as follows:

20
21 The life spans for each generating facility are set forth in the attachment to
22 OIEC 10-11. These life spans were approved in the last depreciation
23 study. Review of these life spans took place in the conduct of this
24 depreciation study, between Gannett Fleming and Oklahoma Gas &
25 Electric personnel. It was determined that the probable retirement dates
26 established in this study best represent Company plans, however,
27 continual review of business plans, regulations and cost-benefit analyses
28 of each unit will take place annually. Those units where the life span was

⁵ *Id.*, page II-26.

⁶ Response to OIEC 10-11.

1 extended from the previously approved probable retirement dates, set forth
2 the short-term plans to meet generation demands.⁷ (Emphasis added.)
3

4 In addition, as it relates to “all support and justification for the assumed life spans for the
5 Company’s investment in wind farms,” it responded as follows:
6

7 Wind generation assets are relatively new so limited statistical analyses is
8 available or conclusive in determining life characteristics. Therefore,
9 judgment is the primary factor for determining the life span. Based on
10 information from wind generation manufacturers, life expectancy of wind
11 assets range from 20 to 30 years. The initial wind farm at Centennial was
12 depreciated with a life span of 25 years.
13

14 Therefore, given the 25-year life span for Centennial and the approved life
15 spans of most other utilities being 20 to 30 years and Mr. Spanos’
16 recommendations for others being primarily 25 years, then the life span
17 for all wind generation is 25 years.⁸ (Emphasis added.)
18
19

20 **Q. DO THE COMPANY’S RESPONSES IN ANY WAY SUPPORT THE**
21 **COMPANY’S LIFE SPAN PROPOSALS?**

22 A. No. First, the Company’s noted attachment in the first referenced response simply
23 presents the resulting life spans. It provides no basis or support for the values. Second,
24 the claim that the life spans “were approved in the last depreciation study” is an
25 erroneous statement. Indeed, the Company’s attachment to the request identifies 9
26 different increases in life spans since the prior study. Moreover, what may have been
27 approved in the past does not provide the underlying support and justification for current
28 life span expectations. Third, stating that there was a “review” of the life spans is a
29 meaningless statement in support of the actual values being proposed. Fourth, to admit
30 that a review was conducted between Gannett Fleming and the Company, but knowingly
31 deciding not to provide the requested basis and support for such review constitutes an
32 apparent admission that there is no meaningful basis for the proposals. Finally, stating
33 that “it was determined” that the proposals “best represents the Company’s plans”

⁷ *Id.*

⁸ Response to OIEC 12-6.

1 represents both a meaningless and an erroneous statement. The phrase “it was
2 determined” provides nothing as to what the analysis, if any, actually was nor what the
3 possible range of results might actually be. Moreover, the results are inconsistent with the
4 Company’s 2010 and 2011 IRPs and thus an unsupported claim that the life spans “best
5 represent the Company’s plans” is erroneous. The Company has elected not to support its
6 life span proposals.

7
8 As it relates to the second referenced response pertaining to wind farms, the Company
9 again fails to present sound or definitive basis for its estimate. What is presented is the
10 admission that the “primary factor” is the “judgment” of Gannett Fleming. It must be
11 noted that the response failed to provide any of the “information from wind generation
12 manufacturers” that are alluded to as the “support and justification” for the claimed
13 judgment. Moreover, even when life span information was specifically requested from
14 Gannett Fleming in order to test the claimed ranges, the responsive information raised
15 more doubt regarding Gannett Fleming’s prior positions and was presented in a manner
16 that masked rather than identified the “other utilities” as specifically requested.⁹

17
18 **Q. ARE YOU PROPOSING ADJUSTMENTS TO THE COMPANY’S PROPOSED**
19 **LIFE SPANS FOR OGE’S STEAM GENERATING UNITS?**

20 A. Yes. For those steam units with proposed life spans less than 60 years I am
21 recommending increases to 60 years. I will first discuss my recommendations as it
22 applies to coal-fired steam units as that is the area with the greatest variations.

23
24 **Q. IS THERE ANY CLAIM BY THE COMPANY THAT ITS COAL-FIRED**
25 **GENERATING FACILITIES CANNOT PHYSICALLY LAST UNTIL OR**
26 **BEYOND A 60-YEAR LIFE SPAN?**

27 A. No. In fact, OGE’s IRP relies on the premise that its steam units will last for 60 years or
28 longer.

29

⁹ Response to OIEC 12-9.

1 **Q. DOES THE COMPANY’S IRP ADDRESS COAL-FIRED GENERATION LIFE**
2 **SPANS?**

3 A. Yes. The Company’s 2010 IRP stated that “coal plants could have 20-30 years left in
4 their life. Coal plants have expected lives of approximately 50-60 years and can be in
5 operation longer than that.”¹⁰ (Emphasis added.) Moreover, the Company’s 2011 IRP
6 states “all thermal units are expected to operate beyond the 30-year study.”¹¹ (Emphasis
7 added.) The fact that the newest or youngest coal-fired unit was placed into service in
8 1980 results in at least a 60-year life span for coal-fired units.

9
10 **Q. ARE 60-YEAR LIFE SPANS FOR COAL-FIRED GENERATING FACILITIES**
11 **REASONABLE?**

12 A. Yes. The United States Energy Information Administration (“EIA”) maintains a listing of
13 all generating facilities in the United States. The EIA database notes that as of 2008, there
14 were almost 1,450 coal-fired generating units in the United States, with over 800 of those
15 that were 100 MW or larger still in operation. Of those, one had already achieved 64
16 years of operation as of the end of 2008. Another 93 of those units had achieved or
17 exceeded 54 years of operation, but had not yet reached 60 years of operation by the end
18 of 2008. The Company has proposed life spans as short as 54 years for coal-fired
19 generation.¹² Further, there were no indications of any significant level of plant
20 retirement activity for coal-fired generating facilities across the United States. Thus,
21 approximately 12% of the existing coal-fired generating units in the United States as of
22 the end of 2008 that were 100 MW or larger had already exceeded 53 years and were
23 rapidly approaching 60 years or more of operation.¹³ If one assumes that there have been
24 no retirements of these large coal-fired units from the end of 2008 through 2011, then the
25 percentage of coal-fired units that will have exceeded 53-years of operation increases to
26 18%.

27

¹⁰ 2011 IRP, page 79.

¹¹ *Id.*, page 12

¹² 2008 Study, page II-26.

¹³ 2008 listing represents the most current data on the EIA website.

1 **Q. IS THERE ANOTHER BASIS FOR RECOGNIZING THAT COAL-FIRED**
2 **GENERATING UNITS CAN OPERATE FOR 60 YEARS OR LONGER?**

3 A. Yes. Several of the largest coal-fired operating utilities in the United States have stated
4 that their coal-fired generating facilities can operate for longer than 60 years, and have
5 relied upon such life expectancies for depreciation purposes. For example, American
6 Electric Power (“AEP”) is one of the largest, if not the largest, operator of coal-fired
7 generating facilities in the United States. AEP’s director of generation has stated that
8 “years of operating and maintenance experience with its solid fuel coal fleet has
9 developed enough institutional knowledge that an expected life span of 60 years for a
10 coal steam unit is not only reasonable, but achievable, provided that unit liabilities are
11 addressed and key components are replaced as needed.”¹⁴ In addition, Rocky Mountain
12 Power Company, an operator of one of the largest coal-fired fleets in the western portion
13 of the United States, filed for life spans in excess of 60 years for its coal-fired generating
14 units, but as part of a settlement agreed to a 61-year life span for coal-fired generating
15 units.¹⁵ Yet another example of a major operator of coal-fired generating facilities in the
16 central portion of the United States is Xcel Energy. It has agreed to accept 60-year life
17 spans for its coal-fired generating facilities in rate proceedings.¹⁶ There are other
18 examples of both litigated and settled cases where 60 years is being adopted for
19 depreciation purposes.
20

21 **Q. HAS THIS COMMISSION SPECIFICALLY DETERMINED THAT THE LIFE**
22 **SPANS FOR COAL-FIRED GENERATION SHOULD BE AT LEAST 60 YEARS?**

23 A. Yes. In a Public Service Company of Oklahoman (“PSO”) case, the Commission
24 specifically ordered a 60-year life span for coal-fired units.¹⁷ Moreover, PSO filed for a
25 60-year life span in its next rate proceedings.¹⁸
26

¹⁴ Response to AG 10-10 Attachment in Oklahoma Corporation Commission Cause No. 200600285, a Public Service Company of Oklahoma case.

¹⁵ Utah Public Service Commission Docket No. 07-035-13.

¹⁶ Public Utility Commission of Texas Docket No. 35763, a Southwest Public Service Company, a subsidiary of Xcel Holding Company, case.

¹⁷ Oklahoma Corporation Commission Cause No. 200600285, a Public Service Company of Oklahoma case.

¹⁸ Oklahoma Corporation Commission Cause Nos. 200800144 and 201000050.

1 **Q. DOES GANNETT FLEMING BELIEVE THAT COAL-FIRED GENERATING**
2 **UNITS CAN OPERATE FOR AT LEAST 60 YEARS?**

3 A. Yes. For example, in a 2007 depreciation study for Northern Indiana Public Service
4 Company, Gannett Fleming stated that the “life span estimate for coal-fired, base load
5 units is 60 to 61 years, which is within the typical range of life spans for such units. The
6 60-year life span estimate applies to almost all of the steam units.”¹⁹

7
8 **Q. CAN THE COMPANY’S GAS-FIRED STEAM GENERATING UNITS**
9 **PHYSICALLY OPERATE FOR 60 YEARS OR LONGER?**

10 A. Yes. There are a much greater number of gas-fired generating units in operation in North
11 America than coal-fired units. Numerous oil/gas-fired generating facilities have already
12 exceeded 60 years of operation and are still operating. Indeed, the Company’s Mustang 1
13 unit has already exceeded 60 years of operation. Therefore, there should be no reasonable
14 expectation, from a physical standpoint, that gas-fired generating facilities cannot exceed
15 60 years of operation.

16
17 **Q. WHAT IS NORMALLY THE DRIVING FACTOR LIMITING LIFE SPANS FOR**
18 **GENERATING FACILITIES?**

19 A. Economic considerations are normally the limiting factor for life spans. If a unit is
20 operating inefficiently and alternative sources of energy at lower cost are available,
21 economic pressures come to bear that may potentially result in the retirement of a
22 generating unit. In particular, older, smaller generating facilities that are inefficient are at
23 greater risk for being retired. Newer, larger, and more efficient generating facilities can
24 be expected to continue operating for extended periods of time based on economic
25 factors. Indeed, the director of generation for AEP stated the following as it applies to a
26 situation where PSO’s coal-fired units would not be fixed:

27
28 As for what incident that may occur to drive an economic evaluation to
29 determine if it is better to ‘fix or retire,’ I can think of none. Even with a
30 catastrophic incident on the boiler, implosion or explosion, I’m confident
31 that the economics would reveal, ‘Fix it.’ The same would apply to a

¹⁹ Northern Indiana Public Service Company 2007 depreciation study at page II-27.

1 catastrophic event on the turbine/generator. These units are so deep in the
2 money, we would fix them. This is not different to what AEP did for
3 Gavin when its boiler imploded some 15 years ago, or Rockport when its
4 turbine wrecked due to a motoring incident in the 80's. Only a
5 catastrophic event of galactic proportions would raise the issue of 'fix or
6 retire,' in my mind, to where a significant portion of the plant was
7 damaged or destroyed.²⁰
8

9 In other words, because of the high capital cost associated with larger steam-fired
10 generating facilities, economics normally dictate that capital expenditures will continue
11 to be made in order to keep the units operating.
12

13 **Q. IS THIS CONCEPT ALSO APPLICABLE TO OGE UNITS?**

14 A. Yes. The Company has already made large capital expenditures to keep numerous units
15 operating. Moreover, the 2011 IRP states that all units are expected to continue operating
16 for 30 years.
17

18 **Q. IS THERE ANY QUESTION THAT FROM A PHYSICAL STANDPOINT THE**
19 **COMPANY'S GENERATING FACILITIES CAN LAST 60 YEARS OR**
20 **LONGER?**

21 A. No. From a physical standpoint there is nothing presented by the Company or the
22 industry that can refute that coal- and gas-fired generating facilities can and have
23 operated for longer periods of time.
24

25 **Q. HAS THE COMPANY PRESENTED ANY ECONOMIC ANALYSIS THAT**
26 **CLEARLY DEMONSTRATES THAT THE ECONOMIC OPERATION OF ITS**
27 **LARGE COAL- OR GAS-FIRED FACILITIES CANNOT OPERATE FOR**
28 **MUCH LONGER PERIODS THAN IT PROPOSES?**

29 A. No.
30
31

²⁰ Oklahoma Corporation Commission Cause No. 200600285, a Public Service Company of Oklahoma proceeding.

1 **Q. WHAT DO YOU RECOMMEND FOR STEAM-FIRED GENERATING UNITS?**

2 A. Since 60-plus-year life spans are becoming the norm for the industry associated not only
3 with oil- and gas-fired generating units, but also with coal-fired generating units, and
4 taking into consideration concerns associated with environmental considerations, I
5 recommend the longer of either a 60-year life span or the life span proposed by the
6 Company. This recommendation results in the following life spans for the Company's
7 steam generating facilities.
8

Steam Unit	Year Installed	2008 Study Retirement Date	2008 Study Life	OIEC Recommended Date	OIEC Recommended Life	Difference
Horseshoe Lake 6	1958	2018	60	2018	60	0
Horseshoe Lake 7	1964	2024	60	2024	60	0
Horseshoe Lake 8	1969	2029	60	2029	60	0
Mustang 1	1950	2016	66	2016	60	0
Mustang 2	1951	2016	65	2016	60	0
Mustang 3	1955	2017	62	2017	62	0
Mustang 4	1960	2020	60	2020	60	0
Seminole 1	1971/1975	2025	54/50	2035	64/60	10
Seminole 2	1971/1973	2026	55/53	2033	62/60	7
Seminole 3	1975	2030	55	2035	60	5
Muskogee 3	1956	2012	56	2012	60	0
Muskogee 4	1977	2034	57	2037	60	3
Muskogee 5	1978	2033	55	2038	60	5
Muskogee 6	1984	2039	55	2044	60	5
Sooner 1	1974/1980	2034	55/54	2040	61/60	6
Sooner 2	1980	2035	55	2040	60	5

9
10 **Q. WHAT LIFE SPAN DOES THE COMPANY PROPOSE FOR NEW COMBINED-**
11 **CYCLE GENERATING FACILITIES?**

12 A. The Company proposes a 31-year life for its investment in the Redbud Generating Station
13 and a 27-year life span for its investment in the McClain Generating Station.²¹
14

²¹ 2008 Study, page II-26.

1 **Q. WHAT IS THE BASIS FOR THE COMPANY’S LIFE SPAN PROPOSALS?**

2 A. As previously noted, when the Company was requested to provide its basis, it essentially
3 provided nothing of substance. Thus, the Commission is presented with a result, but no
4 underlying support or justification for the proposal.

5
6 **Q. ARE THE LIFE SPANS PROPOSED BY THE COMPANY REASONABLE?**

7 A. No. The Company’s proposals reflect artificially short life span expectations.
8

9 **Q. WHAT DO YOU RECOMMEND FOR LIFE SPANS ASSOCIATED WITH NEW
10 COMBINED-CYCLE GENERATING FACILITIES?**

11 A. First, it must be recognized that a combined-cycle generating facility has a steam source
12 component as well as an “Other” production generating investment component. For
13 Steam generating facilities, even the Company is proposing mid 50-year to 60-plus-year
14 life spans. For Other production investment not associated with combined-cycle, the
15 Company is proposing life spans of 35 to 46 years.²² Thus, one would expect dollar-
16 weighted life expectancy for combined-cycle to be in the mid to upper 40-year range. In
17 fact, when another company did maintain its investment in combined-cycle operations
18 segregated between Steam production and Other production, the dollar-weighted average
19 life expectancy should have resulted in approximately a 44-year life span.²³ However, in
20 that proceeding, the regulatory commission ultimately adopted a 35-year life span. Thus,
21 while I believe a 40-plus-year dollar-weighted life span is more appropriate for new
22 combined-cycle generating unit investment, I am recommending a first step in the overall
23 process in reaching the most appropriate value by recommending nothing less than a 35-
24 year life span be adopted for OGE. If the Commission were so inclined, it would be more
25 than appropriate to increase the initial life span for these generating units to 40 or even 45
26 years.
27

²² *Id.*

²³ Docket No. 08-12002, a Nevada Power Company proceeding before the Nevada Public Service Commission.

1 **Q. ARE YOU AWARE OF OTHER UTILITIES THAT PROPOSE LIFE SPANS FOR**
2 **COMBINED-CYCLE LONGER THAN THE FIRST-STEP 35-YEAR PERIOD**
3 **YOU ARE RECOMMENDING?**

4 A. Yes. For example, PacifiCorp in its 2008 IRP identified design life expectations of 40
5 years for combined-cycle generating facilities. In addition, it is my understanding that the
6 Michigan Public Service Commission uses a 40-year life span for new combined-cycles
7 in capacity studies.²⁴
8

9 **Q. WHY IS THERE SUCH UNCERTAINTY ASSOCIATED WITH LIFE SPANS**
10 **FOR COMBINED-CYCLES?**

11 A. Combined-cycle generation represents a relatively new form of generation. While
12 combined-cycle operations have been in place for extended periods of time, the new
13 combined-cycle generating facilities are much larger than those previously in existence
14 and represent a sizeable investment by utilities. As was the case during the 1960s and
15 1970s when nuclear units were first being placed into service, utilities were proposing life
16 spans for that type of new investment as short as 20 or 25 years. We now know that
17 nuclear plants can last much longer than 25 years, or even longer than the 40-year initial
18 license periods. Indeed, the Nuclear Regulatory Commission has now extended the
19 operating license for the majority of nuclear plants to 60 years. While utility companies
20 desire to reduce their capital exposure by proposing artificially short initial life spans, the
21 Commission must balance the interest of consumers and utilities in establishing life spans
22 for new technology. History has proven that utilities have consistently underestimated the
23 life expectancy for various types of generation, not just for nuclear plants, but also for
24 coal-fired and gas-fired generating facilities in the past. The practice of proposing
25 artificially short life spans for new types of generation should not be applied to
26 combined-cycle investment. I believe my recommendation for a 35-year life span still
27 overly weights the balance between shareholders and customers in favor of the Company
28 and should be considered only an initial step, with the Commission ordering the
29 Company to develop a detailed and complete basis for realistic life expectancies for such
30 investment to be filed in the Company's next depreciation study. Until such time, a life

²⁴ Michigan Public Service Commission Docket No. U-14231.

1 span no less than 35 years should be utilized for ratemaking purposes in order to
2 eliminate intergenerational inequity.

3
4 **Q. AS IT RELATES TO WIND TURBINE GENERATION, WHAT LIFE SPAN IS**
5 **THE COMPANY PROPOSING?**

6 A. The Company proposes a 25-year life span for its investment in wind turbines.²⁵

7
8 **Q. WHAT IS THE COMPANY'S BASIS FOR ITS PROPOSAL?**

9 A. As previously noted, when the Company was requested to provide all support and
10 justification as well as all studies utilized to support the probable retirement dates for
11 wind generation, the Company responded by providing nothing of substance.

12
13 **Q. IS THE COMPANY'S PROPOSAL CONSISTENT WITH ITS IRP?**

14 A. No. The 2011 IRP states that the decision process associated with evaluating the adoption
15 of its wind projects was based on a 30-year net present value analysis.²⁶ A 30-year net
16 present value evaluation period does not cap the expected life span at 30-years, but rather
17 establishes the lower end of the possible range. In other words, when evaluating whether
18 to obtain wind generation, the Company expected that wind farms would operate for at
19 least 30 years.

20
21 **Q. HAVE YOU IDENTIFIED OTHER INFORMATION ASSOCIATED WITH**
22 **WIND FARM LIFE EXPECTANCY?**

23 A. Yes. A registration filing for the Nuttby Mountain Wind Farm project in Nova Scotia was
24 developed by CBCL Limited. Contained within that document is a statement that the
25 "design life of a wind farm is typically 20 or more years, and capital improvements and
26 replacement programs may extend safe and efficient operation well beyond 40 years."²⁷
27 While this document still does not provide any underlying support and justification for
28 the statement, it does identify that minimum life expectancies are in the 20-year range,

²⁵ 2008 Study, page II-26.

²⁶ 2011 IRP, page 32.

²⁷ <http://www.gov.ns.ca/nse/ea/nuttbymountainwindfarm/NuttbyMountainWindFarm-Registration.pdf> at page 15, Project Description, Section 2.3.3 Reclamation and Decommissioning.

1 but that capital improvements can extend the life to 40 years or more. This Nova Scotia
2 statement is significant given that Gannett Fleming also was the depreciation consultant
3 for Nova Scotia Power Company in the case where the document was obtained.
4

5 Another significant consideration is the fact that Gannett Fleming has supported a 29- or
6 30-year life span for wind facilities.²⁸ In addition, expenditures of the magnitude
7 corresponding to OGE's investment in wind farms are noticeably subject to the
8 previously-noted forces of economics, that is, the need to maximize the benefits of capital
9 intensive investments.
10

11 **Q. WHAT DO YOU RECOMMEND FOR LIFE SPANS ASSOCIATED WITH WIND**
12 **GENERATION?**

13 A. Again, we are faced with a future life span projection with limited information. However,
14 given the push for renewable energy sources, such as wind turbines, I recommend a
15 gradual movement towards longer life spans for wind turbines. At this point, I
16 recommend a 33-year life span, which reflects the approximate midpoint of the low end
17 of the Company proposed life span range and the 40 years or beyond time frame, as
18 referenced in the industry.²⁹
19

20 **SECTION IV: INTERIM RETIREMENTS**

21
22 **Q. WHAT ISSUE DO YOU ADDRESS IN THIS PORTION OF YOUR**
23 **TESTIMONY?**

24 A. The issue in this portion of my testimony addresses the Company's choice for estimation
25 of interim retirements for production plant accounts.
26

27 **Q. WHAT ARE INTERIM RETIREMENTS?**

28 A. Interim retirements have been characterized as a fine tuning adjustment to the life span
29 analysis. The life span method is used in estimating the retirement date for any large unit

²⁸ Response to OIEC 12-9 Attachment.

²⁹ The average of the Company-proposed 25-year life span and a 40-year life span.

1 of property such as an entire generating unit. The theory behind interim retirement rates
2 is that even though a large unit of property such as a generating unit might retire in 60
3 years, in the interim period many components have to be replaced in order to maintain the
4 overall generating facility in operating condition. An analogy to this would be a building
5 that might be anticipated to have a service life of 60 years. During the 60-year life of the
6 building, the owner will have to replace the roof, HVAC system, carpeting, and other
7 components in order to maintain the building in a safe and operable condition. Therefore,
8 even though the building may have an overall 60-year life span, its dollar-weighted
9 adjusted life span may be 58 years due to the averaging of the building's overall life span
10 with the average of the individual replaced components. In other words, the interim
11 retirement rate would be a fine-tuning factor used to reduce the service life from 60 years
12 to 58 years.

13
14 **Q. HAS THE COMPANY INCORPORATED THE IMPACT OF INTERIM**
15 **RETIREMENTS IN ITS DEPRECIATION ANALYSIS?**

16 A. Yes. The Company proposes to implement a calculation procedure for interim retirements
17 based on an "estimated" interim retirement Iowa survivor curve that it truncates at the
18 proposed final retirement date for each unit.³⁰

19
20 **Q. DO YOU AGREE WITH THE COMPANY'S POSITION?**

21 A. While I agree with the Company that interim retirements should be included in the
22 calculation of production plant depreciation rates, I do not agree with the Company's
23 proposed process or results. I find the Company's proposal inappropriate and
24 cumbersome for application in this proceeding.

25
26 **Q. PLEASE EXPLAIN THE PROBLEMS WITH THE COMPANY'S PROPOSED**
27 **METHOD.**

28 A. The Company's approach relies on an actuarial analysis of the historical data to
29 determine an interim retirement life-curve combination. Actuarial analysis, like all
30 modeling, has certain guidelines required for proper application. Actuarial analysis is to

³⁰ 2008 Study, II-25.

1 be employed on homogenous investments that are not generally dependent on one
2 another, such as poles or wires. In other words, similar items of investment that should
3 react in a similar manner when exposed to similar retirement forces can be appropriately
4 analyzed by the statistical actuarial mode. For example, the cycling of a generating unit
5 will place stress on the turbine and may impact its useful life, but the same cycling
6 pattern will not affect the turbine cranes that are used to move parts when a unit is not
7 operating. However, both the turbine and the turbine crane are recorded in Account 314 –
8 Turbogenerator Units. In particular, the varying types of investments within each of the
9 major Production plant accounts do not reasonably lend themselves to actuarial
10 analyses.³¹ This concern is further magnified when coal-fired units are combined with
11 both older and newer gas-fired generating units. However, the Company’s actuarial
12 approach treats all items in the same account as one type of item for life estimation
13 purposes. The Company’s approach is no different than attempting to obtain a
14 meaningful expected life pattern for vehicles by combining data for mopeds,
15 motorcycles, cars, trucks, and motorized heavy construction vehicles together and then
16 performing an actuarial analysis. The end result would be a numerical value, but would
17 have limited validity for a current fleet of vehicles that only contains cars and pickup
18 trucks.

19
20 Moreover, the result of an actuarial analysis is an observed life table (“OLT”), which
21 begins at 100% surviving when new and declines downward toward 0% surviving as time
22 passes. Unfortunately, the Company’s actuarial production plant results often do not
23 provide reasonable matches between the OLT and the assumed Iowa Survivor curve the
24 Company proposes as its best match. For example, the Company’s assumed 30 R3 life-
25 curve combination for Account 343 – Other Production Prime Movers is *not* a good fit to
26 the OLT.³² As can be seen in the 2008 Study, the Company’s proposal for that account,
27 developed through its actuarial approach, clearly begins to deviate from the OLT almost

³¹ While complete homogeneity does not exist for Transmission and Distribution accounts where actuarial analyses are often employed, there are differences. Transmission and Distribution plant accounts normally contain many more similar items of investment than is the case for Production plant.

³² 2008 Study at page III-37.

1 from the beginning and continues that deviation through the remainder of the limited
2 data.

3
4 Yet another concern is the erratic pattern of dollars of exposures relied upon in many
5 account analyses. For example, for Account 312 – Steam Boiler Plant, the exposures
6 begin at approximately \$132 million at age 0, then decline rapidly to \$43 million at age
7 4.5 years, then increase to \$74 million at age 11.5 years, then jump sharply up to \$628
8 million at age 23.5 years, then decline to less than \$27 million at age 35.5 years, only to
9 increase again and fluctuation through 45.5 years of age.³³ This type of pattern is too
10 unstable to rely upon in order to obtain credible actuarial results. Indeed, had the
11 retirements in age bracket 11.5 years actually occurred only one year later, the impact
12 would be different by a factor of 3.5 from the factor actually relied on.³⁴ Changes of this
13 magnitude in an actuarial analysis are very significant.

14
15 **Q. IS THERE YET ANOTHER CONCERN?**

16 A. Yes. The stability of actuarial results also depends on the length of the database analyzed.
17 Indeed, Gannett Fleming normally relies on long database for actuarial results. However,
18 for this Company it employed a 7-year experience band in the last depreciation study and
19 only a 12-year experience band in the 2008 Study.³⁵ This limited experience band is
20 unacceptably short compared to the expected useful life of approximately 60 years for
21 many generating units.

22
23 **Q. WHAT SPECIFIC INTERIM RETIREMENT LIFE-CURVE COMBINATIONS**
24 **HAS THE COMPANY PROPOSED?**

25 A. The Company proposes a wide range of interim retirement life-curve combinations for
26 major Steam and Other production plant accounts. The Company's proposals are set forth
27 in the table below.

28

³³ 2008 Study at pages III-20 and III-21.

³⁴ $\$1,903,745 \div \$259,077,922 = 0.0073$, rather than the actual retirement ratio of 0.0258. $0.0258 \div 0.0073 = 3.5$.

³⁵ Response to OIEC 9-10.

Account	Company's Proposal
Steam Production	
310 – Land & Land Rights	100 S4
311 – Structures & Improvements	100 R2.5
312 – Boiler Plant Equipment	90 R1.5
314 – Turbogenerator Units	50 R1
315 – Accessory Electric Equipment	65 S2
316 – Misc. Power Plant Equipment	50 R1.5
Other Production	
341 – Structures & Improvements	50 S3
342 – Fuel Holders, Prod. & Acc.	55 R4
343 – Prime Movers	30 R3
344 – Generators	45 R3
345 – Accessory Electric Equipment	25 S2
346 – Misc. Power Plant Equipment	30 R2.5

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Q. HAS THE COMPANY DEMONSTRATED THE REASONABLENESS OF ITS ESTIMATE BASED ON COMPARISON WITH OTHER UTILITIES?

A. No.

Q. HAVE YOU REVIEWED INTERIM RETIREMENT CURVES PROPOSED BY GANNETT FLEMING FOR OTHER ELECTRIC UTILITIES?

A. Yes. While I requested specific parameters proposed by Gannett Fleming for other companies, and why the parameters might be comparable, Gannett Fleming elected only to provide a generic range of values and claimed that the “estimates cannot be distributed in a document.”³⁶ (Emphasis added.) Gannett Fleming’s claim in this case is wrong, as it did provide a precise listing of parameters by identified utility in another current case. Given Gannett Fleming’s inaccurate and inconsistent response in this case, I have relied on its more responsive document provided earlier this year in another case. Based on my review, Gannett Fleming proposes a significant variance in interim retirement curves for the same plant account. While some variation may be reasonable or expected due to different general operating characteristics or other factors, some of the variances historically proposed by Gannett Fleming are outside of a reasonable range of values that can be relied upon for meaningful interim retirement results. This excessive variance

³⁶ Response to OIEC 9-11.

1 highlights the problems that can and do arise when utilizing the wrong life analysis tool
2 (actuarial analysis) when there is a lack of homogeneity within the data being analyzed.
3 For example, Gannett Fleming has recommended average service lives ranging from 35
4 years to 125 years for interim retirement purposes associated with Account 311 – Steam
5 Structures & Improvements. While the variance for Account 312 – Steam Boiler Plant is
6 not as great, it still varies from 30 years to 80 years. Again, variances of this magnitude
7 for supposedly similar equipment should raise significant concern for the analyst as to
8 whether the method being employed to develop such values is appropriate for the area
9 being investigated. Similar variances for other accounts also exist. Indeed, for the largest
10 Other production plant account, Account 344 – Generators, Gannett Fleming has
11 recommended interim retirement average service lives ranging from 25 to 70 years.
12 Again, variances of this magnitude for Other production categories should raise
13 significant concern regarding the method being employed to develop such values.
14

15 **Q. ARE YOU PROPOSING ANY ADJUSTMENTS TO THE LEVEL OF INTERIM**
16 **RETIREMENTS REQUESTED BY THE COMPANY?**

17 A. Yes. Given the method employed by the Company and the erratic nature of the
18 underlying data, I recommend an alternative approach and alternative values for interim
19 retirements.
20

21 **Q. WHAT DO YOU RECOMMEND?**

22 A. I propose an interim retirement adjustment that is not based on truncated Iowa Survivor
23 curves. In other words, I have replaced the actuarial component of the analysis, given that
24 the plant analyzed is neither reasonably homogeneous nor independent from the life of
25 the overall generating unit. The method I rely upon is one previously adopted by this
26 Commission and many other commissions. Indeed, in a recent Florida Public Service
27 Commission proceeding where this identical issue arose, with both Gannett Fleming and
28 myself being witnesses in the proceeding, the Florida Public Service Commission
29 adopted my approach.³⁷
30

³⁷ Florida Public Service Commission Docket. No. 080677-EI, a Florida Power & Light Company proceeding.

1 Next, I developed interim retirement ratios for each of the plant accounts based on actual
2 Company-specific information. In other words, the interim retirement ratios utilized in
3 my approach were developed from the historical reported levels of retirement activity by
4 account for each of the Steam and Other production accounts. The resulting interim
5 retirement ratios and the corresponding impact on remaining lives are set forth on Exhibit
6 (JP-1).

7
8 **SECTION V: MASS PROPERTY NET SALVAGE**

9
10 **Q. WHAT IS THE ISSUE IN THIS PORTION OF YOUR TESTIMONY?**

11 A. This portion of my testimony will only address the Company's request for a negative
12 25% net salvage associated with Account 353 – Transmission Station Equipment.

13
14 **Q. WHAT DOES THE COMPANY PROPOSE FOR NET SALVAGE FOR
15 ACCOUNT 353 – TRANSMISSION STATION EQUIPMENT?**

16 A. The Company proposes a negative 25% net salvage.³⁸

17
18 **Q. WHAT IS THE COMPANY'S BASIS FOR ITS PROPOSAL?**

19 A. As with most proposals presented by the Company, there is basically no specific basis
20 presented by the Company in support of its proposed negative 25%. Given that the
21 Company's depreciation study does state that part of the basis for overall net salvage
22 proposals is "a review of experienced cost of removal and salvage related to
23 retirements,"³⁹ and the fact that the historical overall average for the period 1991 through
24 2008 equals negative 24%,⁴⁰ it appears that the Company's proposal is based on a simple
25 weighted average of recorded occurrences during the 18-year period 1991 through 2008.

26
27 **Q. DO YOU AGREE WITH THE COMPANY'S PROPOSAL?**

28 A. No. The Company's proposal is excessively negative. I recommend a value no more
29 negative than a negative 5% at this time.

³⁸ 2008 Study, page III-9.

³⁹ *Id.*, page I-4.

⁴⁰ *Id.*, page III-139.

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Q. PLEASE PLACE THE COMPANY'S PROPOSAL INTO PROPER PERSPECTIVE.

A. The Company's proposal for a negative 25% net salvage results in an increase in depreciation expense of \$1,862,562 based on plant as of December 31, 2009.⁴¹ More important is the fact that Gannett Fleming identifies its proposed industry values for this particular account as ranging from a positive 5% to a negative 20%.⁴² In other words, Gannett Fleming, without any identifiable investigation and without specific justification and support has assumed that whatever is reflected in the Company's past 18 years of historical data is representative of future expectations. This unsupported assumption has been made in spite of the fact that the negative 25% net salvage proposal exceeds the high end of the negative net salvage range reported by Gannett Fleming for industry values. Further, while Gannett Fleming presented only a range of values, it must be noted that the average is approximately negative 7%, and the median value is a negative 5%.⁴³

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDATION?

A. Based on the limited information provided by the Company and knowledge of the industry, a value between a positive 5% and a negative 5% is warranted. First, addressing the Company's actual historical data, annual values ranging from a high of a positive 699% to a low of a negative 907% net salvage are presented.⁴⁴ Ranges that reflect such a dramatic variance provide little support and justification as a predictive value of future events. The significant variance can be due to retirements during ice storms or other emergency situations that can result in exceedingly high, but overall atypical, cost of removal values. Such events are not representative of what can reasonably be anticipated in the future for the majority of retirements.

Next, the Company claims that it assigns 20% of work orders associated with replacement activity to cost of removal, but has failed to provide any support or

⁴¹ *Id.*, page III-9 with a zero (0) level of net salvage.
⁴² Response to OIEC 9-16 Attachment.
⁴³ Gannett Fleming database provided in another proceeding during 2011.
⁴⁴ 2008 Study, page III-139.

1 justification for such arbitrary and high level of assignment.⁴⁵ Gannett Fleming's
2 apparent decision not to question or even investigate this arbitrary assignment of costs is
3 surprising given that Gannett Fleming, in another current study, relies on another utility's
4 decision to assign only 5% of costs incurred in replacement activity to cost of removal.⁴⁶
5 The fact that Gannett Fleming and the Company chose not to provide the underlying
6 studies as requested in discovery must mean that Gannett Fleming has no basis to accept
7 and rely upon a value that appears excessive on its face. This position is unreasonable
8 given the fact that the resulting negative 25% net salvage Gannett Fleming recommends
9 exceeds the high end of the range of negative values that it has identified as the
10 underlying industry experience it relied upon. In addition, the Company cannot identify
11 the level of overtime or contractor expenses incurred in association with historical
12 retirement activity, or, for that matter, what percent of historic activity is associated with
13 replacement activity occurring at the time of retirement.⁴⁷
14

15 Additional review of the Company's historical data further calls into question the
16 reasonableness of a negative value far in excess of a negative 5% net salvage. For
17 example, approximately 70% of all retirements in the past 10 years occurred during
18 1999.⁴⁸ During this particular year, the Company experienced a negative 7% net salvage.
19 The second-highest retirement year reflected in the Company's database occurred in
20 1996. During that year, the Company reported a positive 5% net salvage associated with
21 its retirements. In addition, the third-highest year of retirement activity in the Company's
22 database occurred in 1992. In that year, the Company experienced a positive 146% net
23 salvage.⁴⁹ The limited negative net salvage or positive net salvage that has occurred in the
24 years during which the greatest level of retirement activity has taken place is significant.
25 Such situations may be indicative of the concept of economies of scale. Indeed, the
26 Company admits that in most cases, its historical data is time-synchronized.⁵⁰ Time
27 synchronization simply means that in most cases the Company records gross salvage and

⁴⁵ Response to OIEC 9-13.

⁴⁶ Application No. 1606694, an AltaGas Utilities, Inc. proceeding before the Alberta Utilities Commission.

⁴⁷ Response to OIEC 8-16, 8-17, and 9-3.

⁴⁸ 2008 Study, III-139.

⁴⁹ *Id.*

⁵⁰ Response to OIEC 8-1.

1 cost of removal in the same year that the retirement activity is recorded. While this may
2 not be the case in all instances, it must be presumed to be the situation in most instances,
3 given the Company's statement. Thus, the Company's negative 25% proposal, which
4 appears to be only based on an average of the last 18 years, gives too great a weight to
5 years in which limited levels of retirement activity have occurred, but which correspond
6 to high levels of negative net salvage.

7
8 For example, there is normally a high cost of removal in relationship to the dollar level of
9 investment associated with having to replace a lightning arrestor that is struck by
10 lightning. The lightning arrestor represents a very limited level of investment in this
11 account. Unfortunately, such small items of investment appear to be disproportionately
12 reflected in the Company's historic data. Indeed, while transformers, which are
13 anticipated to have positive salvage, reflect in excess of 20% of the investment in the
14 account,⁵¹ transformers represent only 7% of the retirement activity during the past 10-
15 year period.⁵² Thus, Gannett Fleming's failure to investigate the underlying type of
16 retirement activity and investment reflected in the historical data has caused it to
17 incorrectly assume that the historical average is representative of future expectations. The
18 actual mix of investment versus the mix of retirement is inconsistent between the
19 historical data and the current investment remaining in service. Gannett Fleming has
20 neither identified nor produced an analysis of the historical data other than its mechanical
21 averaging of historical values.

22
23 Another consideration justifying a less negative, or even a positive, net salvage value for
24 this account is the fact that the price of scrap copper has increased dramatically during
25 the last eight to ten years. In the early 2000s, the price of scrap copper was approximately
26 \$0.40 to \$0.50 per pound. During 2011, scrap copper has exceeded \$4.50 per pound and
27 is currently around \$3.70 per pound.⁵³ This is significant as transformers contain
28 substantial quantities of copper. Given that the Company takes the position that it cannot

⁵¹ Response to OIEC 9-7.

⁵² Response to OIEC 9-8.

⁵³ COMEX/NYMEX price as of October 28, 2011.

1 reasonably estimate the amount of copper contained in its transformers,⁵⁴ it must be
2 presumed that Gannett Fleming failed to consider the potential significant positive
3 salvage value associated with retirement of transformers in its unsupported decision to
4 simply rely on a mathematical average of net salvage that the Company reported during
5 the past 18 years. This approach fails to recognize the dramatic increase in scrap copper
6 prices and the fact that as the economies of China and India continue to expand and
7 demand more raw materials, the price of scrap copper, as well as other scrap metals, is
8 anticipated to remain high if not increase. It is further worth nothing that another utility
9 this year was willing and able to identify that its transformers, depending on size, could
10 reasonably contain between 11,000 and 27,500 pounds of copper.⁵⁵

11
12 Yet another consideration for my negative 5% recommendation is the fact that Public
13 Service Company of Oklahoma relies on a negative 4% net salvage for investment in this
14 account.⁵⁶ Therefore, any claims for significantly different levels of negative net salvage
15 for OGE may be reflective of inappropriate accounting or inappropriate replacement
16 activity and should not be adopted as being representative of what can and will be done in
17 the future.

18
19 In summary, whether based on a proper and more detailed review of the actual historical
20 data, or taking into account the dramatic increase in scrap copper prices, or from an
21 industry average standpoint, or from an economies of scale standpoint, the Company's
22 proposed negative 25% net salvage is significantly excessive. While a zero (0) or positive
23 5% net salvage may be appropriate, a conservative value at this time is my
24 recommendation for a negative 5% net salvage.

54 Response to OIEC 9-14.

55 Application No. 10-12-005, a San Diego Gas and Electric Company proceeding before the California Public Utilities Commission, response to TURN 4-27.

56 Cause No. PUD 201000050.

1 **Q. WHAT IS THE IMPACT OF YOUR RECOMMENDATION?**

2 A. My recommendation results in a \$1,489,961 reduction in depreciation expense based on
3 plant as of December 31, 2009. Further, my recommendation results in a 1.81% annual
4 depreciation rate for this account compared to the Company's proposed 2.30% rate.

5
6 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

7 A. Yes. However, to the extent I have not addressed an issue, method, procedures, or other
8 matter relevant to the Company's rate case, it should not be construed that I am in
9 agreement with the Company's proposed issue, method, or procedures.

JACOB POUS, P.E.

PRESIDENT, DIVERSIFIED UTILITY CONSULTANTS, INC.

B.S. INDUSTRIAL ENGINEERING, M.S. MANAGEMENT

I graduated from the University of Missouri in 1972, receiving a Bachelor of Science Degree in Engineering, and I graduated with a Master of Science in Management from Rollins College in 1980. I have also completed a series of depreciation programs sponsored by Western Michigan University, and have attended numerous other utility related seminars.

Since my graduation from college, I have been continuously employed in various aspects of the utility business. I started with Kansas City Power & Light Company, working in the Rate Department, Corporate Planning and Economic Controls Department, and for a short time in a power plant. My responsibilities included preparation of testimony and exhibits for retail and wholesale rate cases. I participated in cost of service studies, a loss of load probability study, fixed charge analysis, and economic comparison studies. I was also a principal member of project teams that wrote, installed, maintained, and operated both a computerized series of depreciation programs and a computerized financial corporate model.

I joined the firm of R. W. Beck and Associates, an international consulting engineering firm with over 500 employees performing predominantly utility related work, in 1976 as an Engineer in the Rate Department of its Southeastern Regional Office. While employed with that firm, I prepared and presented rate studies for various electric, gas, water, and sewer systems, prepared and assisted in the preparation of cost of service studies, prepared depreciation and decommissioning analyses for wholesale and retail rate proceedings, and assisted in the development of power supply studies for electric systems. I resigned from that firm in November 1986 in order to co-found Diversified Utility Consultants, Inc. At the time of my resignation, I held the titles of Executive Engineer, Associate and Supervisor of Rates in the Austin office of R. W. Beck and Associates. I later founded P&L Concepts, Inc.

As a principal of the firm of Diversified Utility Consultants, Inc., I have presented and prepared numerous electric, gas, and water analyses in both retail and wholesale proceedings. These analyses have been performed on behalf of clients, including public utility commissions, throughout the United States and Canada. As president of P&L Concepts, Inc., I perform the same type of services as performed under Diversified Utility Consultants, Inc.

I have been involved in over 400 different utility rate proceedings, many of which have resulted in settlements prior to the presentation of testimony before regulatory bodies.

I am registered to practice as a Professional Engineer in the states of Florida, Texas, Mississippi, North Carolina, Arizona, New Mexico, Arkansas, and Oklahoma.

UTILITY RATE PROCEEDINGS IN WHICH TESTIMONY HAS BEEN PRESENTED BY JACOB POUS

ALASKA		
ALASKA REGULATORY COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Beluga Pipe Line Company	P-04-81	Refundable Rates
Beluga Pipe Line Company	U-07-141	Depreciation
Kenai Nikiski Pipeline	U-04-81	Rate Base
ARIZONA		
ARIZONA CORPORATION COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Citizens Utilities Company	E-1032-93-111	Depreciation
ARKANSAS		
ARKANSAS PUBLIC SERVICE COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Reliant Energy ARKLA	01-0243-U	Depreciation
CALIFORNIA		
CALIFORNIA PUBLIC SERVICE COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Pacific Gas & Electric Company	App. No. 97-12-020	Depreciation, Net Salvage, and Amortization of True-Up
Pacific Gas & Electric Company	App. No. 02-11-017	Mass Property Salvage, Net Salvage, Mass Property Life, Life Analysis, Remaining Life, Depreciation
San Diego Gas & Electric Company		Value of Power Plants
Southern California Edison Company	App 02-05-004	Depreciation, Net Salvage
Southern California Edison Company	App 10-11-015	Mass Property Life and Net Salvage
Southern California Gas & San Diego Gas & Electric Company	Apps 10-12-005 & 10-12-006	Mass Property Life, Mass Property Net Salvage
CANADA		
ALBERTA ENERGY AND UTILITIES BOARD		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
AltaLink Management/ Transalta Utilities Corporation	App. Nos. 1279345 and 1279347	Depreciation
Epcor Distribution, Inc.	App. No. 1306821	Depreciation
Enmax Corporation	App. No. 1306818	Depreciation
Transalta Utilities Corporation	TFO Tariff App. 1287507	Depreciation
UtiliCorp Networks Canada (Alberta) Ltd.	App. No. 1250392	Depreciation
Atco Electric	App. No. 1275494	Depreciation
ALBERTA PUBLIC UTILITIES BOARD		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Alberta Power Limited	E 91095	Depreciation
Alberta Power Limited	E 97065	Depreciation

Canadian Western Natural Gas Company, Ltd.		Depreciation
Centra Gas Alberta, Inc.		Depreciation
Edmonton Power Company	E 97065	Depreciation
Edmonton Power Generation, Inc.	1999/2000	GUR Compliance, Depreciation
Northwestern Utilities, Ltd	E 91044	Depreciation
NOVA Gas Transmission, Ltd.	RE95006	Depreciation
TransAlta Utilities Corporation	E 91093	Depreciation
TransAlta Utilities Corporation	E 97065	Depreciation
TransAlta Utilities Corporation	App. No. 200051	Gain on Sale
ALBERTA UTILITIES COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
AltaGas Utilities	1606694	Life Analysis, Net Salvage
AltaLink Management, Ltd.	1606895	Life Analysis, Net Salvage
ATCO Gas	1606822	Life Analysis, Net Salvage
FortisAlberta	1607159	Life Analysis, Net Salvage
NORTHWEST TERRITORIES PUBLIC UTILITIES BOARD		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Northwest Territories Power Corporation	1995/96 and 1996-97	Depreciation
Northwest Territories Power Corporation	2001	Depreciation
NOVA SCOTIA UTILITY AND REVIEW BOARD		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Nova Scotia Power, Inc.	M03665	Production Plant Life and Net Salvage (Inflation), Interim Retirements, Mass Property Life and Net Salvage, ELG vs. ALG, Remaining Life, Fully Accrued
COURTS		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
7 th Judicial Circuit Court of Florida	2008-30441-CICI	Depreciation Valuation
112 th Judicial District Court of Texas	5093	Ratemaking Principles, Calculation of damages
253 rd Judicial District Court of Texas	45,615	Ratemaking Principles, Level of Bond
126 th Judicial District Court of Texas	91-1519	Ratemaking Principles, Level of Bond
172 Judicial District Court of Texas		Franchise Fees
United States Bankruptcy Court Eastern District of Texas	93-10408S	Level of Harm, Ratemaking, Equity for Creditors
3 rd Judicial District Court of Texas		Adequacy of Notice
DISTRICT OF COLUMBIA		
PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Washington Gas Light Company	768	Depreciation
FLORIDA		
FLORIDA PUBLIC SERVICE COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Progress Energy Florida, Inc.	090079-EI	Depreciation, Excess Reserve
Progress Energy Florida, Inc.	050078-EL	Depreciation, Excess Reserve
Florida Power & Light Company	790380-EU	Territorial Dispute

Florida Power & Light Company	080677-EI 090130-EI	Depreciation, Excess Reserve
FEDERAL ENERGY REGULATORY COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Alabama Power Company	ER83-369	Depreciation
Connecticut Municipal Electric Energy Cooperative v. Connecticut Light & Power Company	EL83-14	Decommissioning
Florida Power & Light Company	ER84-379	Depreciation, Decommissioning
Florida Power & Light Company	ER93-327-000	Transmission Access
Georgia Power Company	ER76-587	Rate Base
Georgia Power Company	ER79-88	Depreciation
Georgia Power Company	ER81-730	Coal Fuel Stock Inventory, Depreciation
ISO New England, Inc.	ER07-166-000	Depreciation
Maine Yankee Atomic Power Company	ER84-344-001	Depreciation, Decommissioning
Maine Yankee Atomic Power Company	ER88-202	Decommissioning
Pacific Gas & Electric	ER80-214	Depreciation
Public Service of Indiana	ER95-625-000, ER95-626-000 & ER95-039-000	Depreciation, Dismantlement
Southern California Edison Company	ER81-177	Depreciation
Southern California Edison Company	ER82-427	Depreciation, Decommissioning
Southern California Edison Company	ER84-75	Depreciation, Decommissioning
Southwestern Public Service Company	EL 89-50	Depreciation, Decommissioning
System Energy Resource, Inc.	ER95-1042-000	Depreciation, Decommissioning
Vermont Electric Power Company	ER83 342000 & 343000	Decommissioning
Virginia Electric and Power Company	ER78-522	Depreciation, Rate Base
INDIANA		
INDIANA UTILITY REGULATORY COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Indianapolis Water Company	39128	Depreciation
Indiana Michigan Power Company	39314	Depreciation, Decommissioning
KANSAS		
KANSAS CORPORATION COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Arkansas Louisiana Gas Company	181,200-U	Depreciation
United Cities Gas Company	181,940-U	Depreciation
LOUISIANA		
LOUISIANA PUBLIC SERVICE COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Louisiana Power & Light Company	U-16945	Nuclear Prudence, Depreciation
CITY OF NEW ORLEANS		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Entergy New Orleans, Inc.	UD-00-2	Rate Base, Depreciation

MASSACHUSETTS		
MASSACHUSETTS TELECOMMUNICATION AND ENERGY		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Bay State Gas	D.T.E.-0527	Depreciation
National Grid/KeySpan	07-30	Quality of Service
MISSISSIPPI		
MISSISSIPPI PUBLIC SERVICE COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Mississippi Power Company	U-3739	Cost of Service, Rate Base, Depreciation
MONTANA		
MONTANA PUBLIC SERVICE COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Montana Power Company (Gas)	90.6.39	Depreciation
Montana Power Company (Electric)	90.3.17	Depreciation, Decommissioning
Montana Power Company (Electric and Gas)	95.9.128	Depreciation
Montana-Dakota Utilities	D2007.7.79	Depreciation
Montana-Dakota Utilities	D2010.8.82	Depreciation, Interim Retirements, Production Plant Life and Net Salvage
NEVADA		
PUBLIC UTILITIES COMMISSION OF NEVADA		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Nevada Power Company	81-602, 81-685 Cons.	Depreciation
Nevada Power Company	83-667, Consolidated	Depreciation
Nevada Power Company	91-5032	Depreciation, Decommissioning
Nevada Power Company	03-10002	Depreciation
Nevada Power Company	08-12002	Depreciation, CWC
Nevada Power Company	06-06051	Depreciation, Life Spans, Decommissioning Costs, Deferred Accounting
Nevada Power Company	06-11022	General Rate Case
Nevada Power Company	10-02009	Production Life Spans
Nevada Power Company	11-06007	Early Retirement, Production Plant Net Salvage, Mass Property Life, Mass Property Net Salvage, Excess APFD
Sierra Pacific Gas Company	06-07010	Depreciation, Generating Plant Life Spans, Decommissioning Costs, Carrying Costs
Sierra Pacific Power Company	83-955	Depreciation (Electric, Gas, Water, Common)
Sierra Pacific Power Company	86-557	Depreciation, Decommissioning
Sierra Pacific Power Company	89-516, 517, 518	Depreciation, Decommissioning (Electric, Gas, Water, Common)
Sierra Pacific Power Company	91-7079, 80, 81	Depreciation, Decommissioning (Electric, Gas, Water, Common)

Sierra Pacific Power Company	03-12002	Allowable Level of Plant in Service
Sierra Pacific Power Company	05-10004	Depreciation
Sierra Pacific Power Company	05-10006	Depreciation
Sierra Pacific Power Company	07-12001	Depreciation, CWC
Sierra Pacific Power Company	10-06003	Depreciation, Excess Reserve, Life Spans, Net Salvage
Sierra Pacific Power Company	10-06004	Depreciation, Net Salvage
Southwest Gas Corporation	93-3025 & 93-3005	Depreciation
Southwest Gas Corporation	04-3011	Depreciation
Southwest Gas Corporation	07-09030	Depreciation
NORTH CAROLINA		
NORTH CAROLINA UTILITIES COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
North Carolina Natural Gas	G-21, Sub 177	Cost of Service, Rate Design, Depreciation
OKLAHOMA		
OKLAHOMA CORPORATION COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Arkansas Oklahoma Gas Corporation	PUD 200300088	CWC, Legal Expenses, Factoring, Cost Allocation, Depreciation
Oklahoma Natural Gas Company	PUD 980000683	Depreciation, Calculation Procedure, Depreciation on CWIP
Reliant Energy ARKLA	PUD 200200166	Depreciation, Net Salvage, Software Amortization
Public Service Company of Oklahoma	PUD 960000214	Depreciation, Interim Activity, Net Salvage, Mass Property, Rate Calculation Technique
Public Service Company of Oklahoma	PUD 200600285	Depreciation
Public Service Company of Oklahoma	PUD 200800144	Depreciation
Public Service Company of Oklahoma	PUD 201000050	Depreciation, Evaluation vs. Measurement, Interim and Terminal Net Salvage, Economies of Scale
TEXAS		
PUBLIC UTILITY COMMISSION OF TEXAS		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
CenterPoint Energy Houston Electric, LLC	29526	Stranded Costs
CenterPoint Energy Houston Electric, LLC	36918	Hurricane Cost Recovery
CenterPoint Energy Houston Electric, LLC	38339	Depreciation, Net Salvage, Excess Reserve, Gain on Sale
Central Power & Light Company	6375	Depreciation, Rate Base, Cost of Service
Central Power & Light Company	8439	Fuel Factor
Central Power & Light Company	8646	Rate Base, Excess Capacity, Depreciation, Rate Design, Rate Case Expense
Central Power & Light Company	9561	Depreciation, Excess Capacity, Cost of Service, Rate Base, Taxes
Central Power & Light Company	11371	Economic Development Rate

Central Power & Light Company	12820	Nuclear Fuel and Process, OPEB, Pension, Factoring, Depreciation
Central Power & Light Company	14965	Depreciation, Cash Working Capital, Pension, OPEB, Factoring, Demonstration and Selling Expense, Non-Nuclear Decommissioning
Central Power & Light Company	22352	Depreciation
Central Telephone & United Telephone Company of Texas d/b/a Sprint	17809	Rate Case Expenses
City of Fredericksburg	7661	Territorial Dispute
El Paso Electric Company	9165	Depreciation
Entergy Gulf States, Inc.	16705	Depreciation, Prepayments, Payroll Expense, Pension Expense, OPEB, CWC, Transfer of T&D Depreciation
Entergy Gulf States, Inc.	21111	Reconcilable Fuel Costs
Entergy Gulf States, Inc.	21384	Fuel Surcharge
Entergy Gulf States, Inc.	23000	Fuel Surcharge
Entergy Gulf States, Inc.	22356	Unbundling, Competition, Cost of Service
Entergy Gulf States, Inc.	23550	Reconcilable Fuel Costs
Entergy Gulf States, Inc.	24336	Price to Beat
Entergy Gulf States, Inc.	24460	Implement PUC Subst.R.25.41(f)(3)(D)
Entergy Gulf States, Inc.	24469	Delay of Deregulation
Entergy Gulf States, Inc.	24953	Interim Fuel Surcharge
Entergy Gulf States, Inc.	26612	Fuel Surcharge
Entergy Gulf States, Inc.	28504	Interim Fuel Surcharge
Entergy Gulf States, Inc.	28818	Cert. for Independent Organization
Entergy Gulf States, Inc.	29408	Fuel Reconciliation
Entergy Gulf States, Inc.	30163	Interim Fuel Surcharge
Entergy Gulf States, Inc.	31315	Incremental Purchase Capacity Rider
Entergy Gulf States, Inc.	31544	Transition to Competition Cost
Entergy Gulf States, Inc.	32465	Interim Fuel Surcharge
Entergy Gulf States, Inc.	32710	River Bend 30%, Explicit Capacity, Imputed Capacity, IPCR, SGSF Operating Costs and Depreciation Recovery, Option Costs
Entergy Gulf States, Inc.	33687	Transition to Competition
Entergy Gulf States, Inc.	33966	Interim Fuel Surcharge
Entergy Gulf States, Inc.	32907	Hurricane Reconstruction
Entergy Gulf States, Inc.	34724	IPCR
Entergy Gulf States, Inc.	34800	JSP, Depreciation, Decommissioning, Amortization, CWC, Franchise Fees, Rate Case Exp.
Entergy Texas International	37744	Depreciation, Property Insurance Reserve, Cash Working Capital, Decommissioning Funding, Gas Storage
Gulf States Utilities Company	5560	Depreciation, Fuel Cost Factor
Gulf States Utilities Company	5820	Fuel Cost, Capacity Factors, Heat Rates
Gulf States Utilities Company	6525	Depreciation, Rate Case Expenses

Gulf States Utilities Company	7195 & 6755	Depreciation, Interim Cash Study, Excess Capacity, Rate Case Expense
Gulf States Utilities Company	8702	Rate Case Expenses, Depreciation
Gulf States Utilities Company	10,894	Fuel Reconciliation, Rate Case Expenses
Gulf States Utilities Company & Entergy Corporation	11292	Acquisition Adjustment Regulatory Plan, Base Rate, Rate Case Expenses
Gulf States Utilities Company & Entergy Corporation	12423	North Star Steel Agreement
Gulf States Utilities Company & Entergy Corporation	12852	Depreciation, OPEB, Pensions, Cash Working Capital, Other Cost of Service, and Rate Base Items
Houston Light & Power Company	6765	Depreciation, Production Plant, Early Retirement
Lower Colorado River Authority	8400	Rate Design
Magic Valley Electric Cooperative, Inc.	10820	Cost of Service, Financial Integrity, Rate Case Expenses
Oncor Electric Delivery, LLC	35717	Depreciation, Self-Insurance, Payroll, Automated Meters, Regulatory Assets, PHFU
Southwestern Bell Telephone Company	18513	Rate Case Expenses
Southwestern Electric Power Company	3716	Depreciation
Southwestern Electric Power Company	4628	Depreciation
Southwestern Electric Power Company	5301	Depreciation, Fuel Charges, Franchise Fees
Southwestern Electric Power Company	24449	Fuel Factor Component of Price to Beat Rates
Southwestern Electric Power Company	24468	Delay of Deregulation
Southwestern Public Service Company	11520	Depreciation, Cash Working Capital, Rate Case Expenses
Southwestern Public Service Company	32766	Depreciation Expense Revenue Requirements
Southwestern Public Service Company	35763	Depreciation
Texas-New Mexico Power Company	9491	Avoided Cost, Rate Case Expenses
Texas-New Mexico Power Company	10200	Jurisdictional Separation, Cost Allocation, Rate Case Expenses
Texas-New Mexico Power Company	17751	Rate Case Expenses
Texas-New Mexico Power Company	36025	Depreciation
Texas-New Mexico Power Company	38480	Depreciation, Mass Property Life, Net Salvage
Texas Utilities Electric Company	5640	Franchise Fees
Texas Utilities Electric Company	9300	Depreciation, Rate Base, Cost of Service, Fuel Charges, Rate Case Expenses
Texas Utilities Electric Company	11735	Cost Allocation, Rate Design, Rate Case Expenses
Texas Utilities Electric Company	18490	Depreciation Reclassification
West Texas Utilities Company	7510	Depreciation, Decommissioning, Rate Base, Cost of Service, Rate Design, Rate Case Expenses
West Texas Utilities Company	10035	Fuel Reconciliation, Rate Case Expenses

West Texas Utilities Company	13369	Depreciation, Payroll, Pension, OPEB, Cash Working Capital, Fuel Inventory, Cost Allocation
West Texas Utilities Company	22354	Depreciation
RAILROAD COMMISSION OF TEXAS		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Atmos Energy Corporation	9530	Gas Cost, Gas Purchases, Price Mitigation, Rate Case Expense
Atmos Energy Corporation	9670	CWC, Depreciation, Expenses, Shared Services, Taxes Other Than FIT, Excess Return
Atmos Energy Corporation	9695	Rate Case Expense
Atmos Energy Corporation	9762	Depreciation, O&M Expense
Atmos Energy Corporation	9732	Rate Case Expense
Atmos Energy Corporation	9869	Revenue Requirements
Atmos Energy Corporation	10041	Mass Property Life, Net Salvage
Atmos Pipeline-Texas	10000	Rate Base, Depreciation Life and Net Salvage, Incentive Compensation, Merit Increase, Outside Director Retirement Costs, SEBP
CenterPoint Energy Entex – City of Tyler	9364	Capital Investment, Affiliates
CenterPoint Energy Entex – Gulf Coast Division	9791	Rate Base, Cost Allocation, Affiliate Expenses, Depreciation Net Salvage, Call Center, Litigation, Uncollectibles, Post Test Year Adjustments
CenterPoint Energy Entex – City of Houston	9902	CWC, Plant Adjustments, Depreciation, Payroll, Pensions, Cost Allocation
CenterPoint Energy Entex – South Texas Division	10038	CWC, Incentive Compensation, Payroll, Depreciation
CenterPoint Energy – Texas Coast Division	10007	Cost of Service Adjustment, CWC, ADIT, Incentive Compensation, Pension, Meter Reading, Customer Records and Collection, Investor Relations/Investor Services
CenterPoint Energy – Texas Coast Division	10097	Pension, Severance Expense
Energas Company	5793	Depreciation
Energas Company v. Westar Transmissions Company	5168 & 4892 Cons.	Cost of Service, Refunds, Contracts, Depreciation
Energas Company	8205	Cost of Service, Rate Base, Depreciation, Affiliate Transactions, Sale/Leaseback, Losses, Income Taxes
Energas Company	9002-9135	Depreciation, Pension, Cash Working Capital, OPEB, Rate Design
Lone Star Gas Company	8664	Cash Working Capital, Depreciation Expense, Gain on Sale of Plant, OPEB, Rate Case Expenses

Rio Grande Valley Gas Company	7604	Depreciation
Southern Union Gas Company	2738, 2958, 3002, 3018, 3019 Cons.	Cost of Service, Rate Design, Depreciation
Southern Union Gas Company	6968 Interim & Cons.	Affiliate Transactions, Rate Base, Income Taxes, Revenues, Cost of Service, Conservation, Depreciation
Southern Union Gas Company	8033 Consolidated	Acquisition Adjustment, Depreciation, Excess Reserve, Distribution Plant, Cost of Gas Clause, Rate Case Expenses
Southern Union Gas Company	8878	Depreciation, Cash Working Capital, Gain on Sale of Building, Rate Case Expenses, Rate Design
Texas Gas Service Company	9988 & 9992 Cons.	Cash Working Capital, Post Test Year Plant, ADFIT, Excess Reserve, Depreciation Expense, Amortization of General Plant, Corporate and Division Expenses, Incentive Compensation, Hotel and Meals Expense, Pipeline Integrity Costs
TXU Gas Distribution	9145-9147	Depreciation, Cash Working Capital, Revenues, Gain on Sale of Assets, Clearing Accounts, Over-Recovery of Clearing Accounts, SFAS 106, Wages and Salaries, Merger Costs, Intra System Allocation, Zero Intercept, Customer Weighting Factor, Rate Design
TXU Gas Distribution	9400	Depreciation, Net Salvage, Cash Working Capital, Affiliate Transactions, Software Amortization, Securitization, O&M Expenses, Safety Compliance
TXU Lone Star Pipeline	8976	Depreciation, Net Salvage, Cash Working Capital, ALG vs. ELG
Westar Transmissions Company	5787	Depreciation, Rate Base, Cost of Service, Rate Design, Contract Issues, Revenues, Losses, Income Taxes
TEXAS WATER COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
City of Harlingen-Certificate for Convenience & Necessity	8480C/8485C/8512C	Rate Impact for CCN
City of Round Rock	8599/8600M	Rate Discrimination, Cost of Service
Devers Canal System	8388-M	Affiliate Transactions, O&M Expense, Return, Allocation, Acquisition Adjustment, Retroactive Ratemaking, Rate Case Expenses, Depreciation
Devers Canal System	30102-M	Cost of Service, Rate Base, Ratemaking Principles, Affiliate Transactions
Southern Utilities Company	7371-R	Affiliate Transactions, Cost of Service
Scenic Oaks Water Supply Corporation	8097-G	Affiliate Transactions, Cost of Service, Rate base, Cost of Capital, Rate Design, Depreciation

Sharyland Water Supply vs. United Irrigation District	8293-M	Rate Discrimination, Cost of Service, Rate Case Expenses
Southern Water Corporation	2008-1811-UCR	Cost of Service
Travis County Water Control & Improv. District No. 20		Cost of Service
EL PASO PUBLIC UTILITY REGULATION BOARD		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
Southern Union Gas Company	1991	Depreciation, Calculation Procedure
Southern Union Gas Company	1997	Depreciation, Calculation Procedure
Southern Union Gas Company	GUD 8878 – 1998	Depreciation, Cash Working Capital, Rate Design, Rate Case Expenses
Texas Gas Services Company	2007	Revenue Requirements
UTAH		
UTAH PUBLIC SERVICE COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
PacifiCorp	98-2035-03	Production Plant Net Salvage, Production Life Span, Interim Additions, Mass Property, Depreciation
Questar	05-057-T01	Conservation Enabling Tariff Adjustment Option and Accounting Orders
Rocky Mountain Power	07-035-13	Depreciation
WYOMING		
WYOMING PUBLIC SERVICE COMMISSION		
<u>JURISDICTION / COMPANY</u>	<u>DOCKET NO.</u>	<u>TESTIMONY TOPIC</u>
PacifiCorp	20000-ER-00-162	Rate Parity

OKLAHOMA GAS AND ELECTRIC COMPANY
SUMMARY OF OIEC'S ESTIMATED NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED
ANNUAL DEPRECIATION RATES BY COMPONENT AS OF DECEMBER 31, 2009

Account	Description	Original Cost (a)	% (b)	Net Salvage		Book Reserve (d)	Future Accruals (e)	Retirement Month (f)	Retirement Year (g)	Remaining Life (h)	OIEC Recommended Ret. Rate (i)	Adjusted Rem. Life (j)	Annual Accrual (k)	Rate (l)	OGE Annual Accrual (m)	OIEC Adjustment (n)
				\$ (c)	%											
STEAM PRODUCTION PLANT																
310.1	Land															
	Horseshoe Lake 6	\$116,199	NA													
	Mustang 1	\$101,936	NA													
	Seminole 1	\$1,239,444	NA													
	Muskogee 3	\$54,996	NA													
	Muskogee 4	\$1,826,436	NA													
	Sooner 1	\$7,006,282	NA													
	Total Land	\$10,345,293														
310.2	Rights of Way															
	Horseshoe Lake 6	\$28,509	0%	0.00		\$25,831	\$2,678	6	2018	8.5	0.0001	8.5	\$315	1.11%	\$765	(\$450)
	Mustang 1	\$27,941	0%	0.00		\$24,855	\$3,086	6	2016	6.5	0	6.5	\$475	1.70%	\$2,057	(\$1,582)
	Seminole 1	\$78,916	0%	0.00		\$57,383	\$21,533	6	2035	25.5	0	25.5	\$844	1.07%	\$1,390	(\$546)
	Muskogee 3	\$93,360	0%	0.00		\$93,360	\$0	6	2012	2.5	0	2.5	\$0	0.00%	\$0	\$0
	Muskogee 4	\$2,401	0%	0.00		\$1,718	\$683	6	2037	27.5	0	27.5	\$25	1.03%	\$28	(\$3)
	Sooner 1	\$813,704	0%	0.00		\$578,582	\$235,122	6	2040	30.5	0	30.5	\$7,709	0.95%	\$9,597	(\$1,888)
	Total Rights of Way	\$1,044,832		0.00		\$781,729	263,103						\$9,368		\$13,837	(\$4,469)
311	Structures and Improvements															
	Horseshoe Lake 6	\$8,217,470	-20%	(1,643,493.99)		\$8,638,916	\$1,222,048	6	2018	8.5	0.0001	8.5	\$143,770	1.75%	\$145,067	(\$1,297)
	Horseshoe Lake 7	\$2,773,119	-20%	(554,623.80)		\$2,531,448	\$796,295	6	2024	14.5	0.0001	14.49	\$54,955	1.98%	\$56,402	(\$1,447)
	Horseshoe Lake 8	\$4,857,713	-20%	(971,542.66)		\$4,325,717	\$1,503,539	12	2029	20	0.0001	19.98	\$75,252	1.55%	\$77,405	(\$2,153)
	Mustang 1	\$4,902,117	-20%	(980,423.37)		\$4,891,853	\$990,687	6	2016	6.5	0.0001	6.5	\$152,413	3.11%	\$152,663	(\$250)
	Mustang 2	\$195,298	-20%	(39,059.65)		\$192,961	\$41,397	6	2016	6.5	0.0001	6.5	\$6,369	3.26%	\$6,419	(\$50)
	Mustang 3	\$1,628,467	-20%	(325,693.37)		\$1,688,338	\$265,822	6	2017	7.5	0.0001	7.5	\$35,443	2.18%	\$35,856	(\$413)
	Mustang 4	\$3,279,429	-20%	(655,885.80)		\$3,282,999	\$652,316	6	2020	10.5	0.0001	10.49	\$62,185	1.90%	\$62,864	(\$679)
	Seminole 1	\$16,235,053	-20%	(3,247,010.56)		\$11,786,997	\$7,695,066	6	2035	25.5	0.0001	25.47	\$302,123	1.86%	\$503,050	(\$200,927)
	Seminole 2	\$2,215,601	-20%	(443,120.11)		\$1,845,030	\$813,691	6	2033	23.5	0.0001	23.47	\$34,669	1.56%	\$50,478	(\$15,809)
	Seminole 3	\$7,080,167	-20%	(1,416,033.38)		\$4,921,505	\$520,085	6	2035	25.5	0.0001	25.47	\$140,349	1.98%	\$179,036	(\$38,687)
	Muskogee 3	\$3,165,823	-20%	(633,164.60)		\$3,278,903	\$520,085	6	2037	2.5	0.0001	2.5	\$208,034	6.57%	\$208,579	(\$545)
	Muskogee 4	\$21,193,052	-20%	(4,238,610.35)		\$17,233,549	\$8,198,113	6	2012	27.5	0.0006	27.27	\$300,628	1.42%	\$344,376	(\$43,748)
	Muskogee 5	\$5,434,083	-20%	(1,086,816.59)		\$3,804,841	\$2,716,059	6	2038	28.5	0.0006	28.26	\$96,110	1.77%	\$118,948	(\$22,838)
	Muskogee 6	\$47,877,393	-20%	(9,575,478.61)		\$29,914,342	\$27,538,530	6	2044	34.5	0.0006	34.14	\$806,635	1.68%	\$964,683	(\$158,048)
	Sooner 1	\$91,032,766	-20%	(18,206,553.26)		\$61,658,704	\$47,580,616	6	2040	30.5	0.0006	30.22	\$1,574,474	1.73%	\$1,990,190	(\$415,716)
	Sooner 2	\$12,672,744	-20%	(2,534,548.72)		\$8,138,835	\$7,068,457	6	2040	30.5	0.0006	30.22	\$233,900	1.85%	\$283,452	(\$51,552)
	Total Structures & Improvements	\$322,760,294		(46,552,058.82)		\$168,134,938	\$111,177,415						\$4,227,309		\$5,181,468	(\$954,159)
311.5	Security															
	Horseshoe Lake 6	\$1,556,099	0%	0.00		\$185,782	\$1,370,317	6	2018	8.5	0	8.5	\$161,214	10.36%	\$210,818	(\$49,604)
	Mustang 1	\$1,528,874	0%	0.00		\$189,386	\$1,339,488	6	2016	6.5	0	6.5	\$206,075	13.48%	\$206,075	\$0
	Seminole 1	\$998,981	0%	0.00		\$276,526	\$722,455	6	2035	25.5	0	25.5	\$28,332	2.84%	\$111,147	(\$82,815)
	Muskogee 4	\$3,604,772	0%	0.00		\$112,756	\$3,492,016	6	2037	27.5	0	27.5	\$126,982	3.52%	\$537,233	(\$410,251)
	Sooner 1	\$893,253	0%	0.00		\$407,518	\$485,735	6	2040	30.5	0	30.5	\$15,926	1.78%	\$73,603	(\$57,677)
	Total Security	\$8,581,979		0.00		\$1,171,968	\$7,410,011						\$538,529		\$1,138,876	(\$600,347)
	Total Account 311	\$241,342,273		(46,552,058.82)		\$169,306,906	\$118,587,426						\$4,765,838		\$6,320,344	(\$1,554,506)

OKLAHOMA GAS AND ELECTRIC COMPANY
SUMMARY OF OIEC'S ESTIMATED NET SALVAGE, ORIGINAL COST, BOOK RESERVE AND CALCULATED
ANNUAL DEPRECIATION RATES BY COMPONENT AS OF DECEMBER 31, 2009

Account	Description	Original Cost (a)	% (b)	Net Salvage		Book Reserve (d)	Future		Retirement Month (f)	Year (g)	Remaining Life (h)	OIEC Recommended		Annual Accrual (k)	Rate (l)	OGE		OIEC Adjustment (n)
				\$ (c)	% (e)		Accruals (e)	Interim Ret. Rate (i)				Adjusted Rem. Life (j)	Annual Accrual (m)					
312	Boiler Plant																	
	Horseshoe Lake 6	\$12,730,758	-15%	(1,909,613.64)		\$10,912,604	\$3,727,767	6	2018	8.5	0.0008	8.47	\$440,114	3.46%	\$446,001	(\$5,887)		
	Horseshoe Lake 7	\$12,953,006	-15%	(1,942,950.91)		\$10,614,703	\$4,281,254	6	2024	14.5	0.0008	14.42	\$296,897	2.29%	\$302,619	(\$5,722)		
	Horseshoe Lake 8	\$14,616,850	-15%	(2,192,527.47)		\$12,566,839	\$4,242,538	12	2029	20	0.0008	19.84	\$213,838	1.46%	\$220,967	(\$7,129)		
	Mustang 1	\$4,224,569	-15%	(633,685.39)		\$3,948,643	\$909,612	6	2016	6.5	0.0008	6.48	\$140,372	3.32%	\$141,731	(\$1,359)		
	Mustang 2	\$3,537,634	-15%	(530,645.16)		\$3,489,418	\$578,862	6	2016	6.5	0.0008	6.48	\$89,330	2.53%	\$89,873	(\$543)		
	Mustang 3	\$6,007,927	-15%	(901,189.05)		\$6,105,935	\$803,181	6	2017	7.5	0.0008	7.48	\$107,377	1.79%	\$108,957	(\$1,580)		
	Mustang 4	\$15,326,553	-15%	(2,298,982.98)		\$14,265,679	\$3,359,857	6	2020	10.5	0.0008	10.46	\$321,210	2.10%	\$327,214	(\$6,004)		
	Seminole 1	\$26,537,114	-15%	(3,980,567.12)		\$16,641,140	\$13,876,541	6	2035	25.5	0.0008	25.24	\$549,784	2.07%	\$921,439	(\$371,655)		
	Seminole 2	\$19,705,151	-15%	(2,955,772.60)		\$14,570,964	\$8,089,959	6	2033	23.5	0.0008	23.28	\$347,507	1.76%	\$509,821	(\$162,314)		
	Seminole 3	\$41,552,660	-15%	(6,232,898.94)		\$27,929,533	\$19,856,006	6	2035	25.5	0.0008	25.24	\$786,688	1.89%	\$1,011,465	(\$224,777)		
	Muskogee 3	\$12,041,935	-15%	(1,806,290.25)		\$11,360,219	\$2,488,006	6	2012	2.5	0.0008	2.5	\$995,203	8.26%	\$1,000,505	(\$5,303)		
	Muskogee 4	\$109,728,198	-15%	(16,459,229.72)		\$74,699,226	\$51,488,202	6	2037	27.5	0.0016	26.9	\$1,914,060	1.7%	\$2,204,333	(\$290,273)		
	Muskogee 5	\$83,633,100	-15%	(12,544,964.96)		\$56,984,649	\$39,193,416	6	2038	28.5	0.0016	27.85	\$1,407,304	1.68%	\$1,745,776	(\$338,472)		
	Muskogee 6	\$212,875,649	-15%	(31,931,347.36)		\$124,195,723	\$120,611,273	6	2044	34.5	0.0016	33.55	\$3,594,971	1.69%	\$4,337,931	(\$742,960)		
	Sooner 1	\$166,099,984	-15%	(24,914,997.54)		\$113,736,748	\$77,278,233	6	2040	30.5	0.0016	29.76	\$2,596,715	1.56%	\$3,300,988	(\$704,273)		
	Sooner 2	\$137,052,243	-15%	(20,557,836.49)		\$85,938,450	\$71,671,630	6	2040	30.5	0.0016	29.76	\$2,408,321	1.76%	\$2,954,358	(\$546,037)		
	Total Boiler Plant	\$878,623,331		(131,793,499.60)		\$587,960,493	\$422,456,337						\$16,209,690		\$19,623,978	(\$3,414,288)		
312.1	Continuous Emission Monitoring																	
	Horseshoe Lake 6	\$762,103	0%	0.00		\$735,822	\$26,281	6	2018	8.5	0	8.5	\$3,092	0.41%	\$3,520	(\$428)		
	Horseshoe Lake 7	\$752,976	0%	0.00		\$752,975	\$1	6	2024	14.5	0	14.5	\$0	0.00%	\$0	\$0		
	Horseshoe Lake 8	\$45,823	0%	0.00		\$45,823	\$0	12	2029	20	0	20	\$0	0.00%	\$0	\$0		
	Mustang 1	\$9,437	0%	0.00		\$807	\$8,630	6	2016	6.5	0	6.5	\$1,328	14.07%	\$1,015	\$313		
	Mustang 3	\$70,203	0%	0.00		\$42,410	\$27,793	6	2017	7.5	0	7.5	\$3,706	5.28%	\$4,119	(\$413)		
	Seminole 1	\$1,218,139	0%	0.00		\$1,112,899	\$45,240	6	2020	10.5	0	10.5	\$4,309	0.35%	\$6,259	(\$1,950)		
	Seminole 2	\$937,976	0%	0.00		\$872,482	\$65,494	6	2035	25.5	0	25.5	\$2,568	0.27%	\$9,084	(\$6,516)		
	Seminole 3	\$915,295	0%	0.00		\$885,271	\$30,024	6	2033	23.5	0	23.5	\$1,278	0.14%	\$4,342	(\$3,064)		
	Seminole 4	\$932,700	0%	0.00		\$895,469	\$37,231	6	2035	25.5	0	25.5	\$1,460	0.16%	\$4,857	(\$3,397)		
	Muskogee 3	\$937,513	0%	0.00		\$905,545	\$31,968	6	2012	2.5	0	2.5	\$12,787	1.36%	\$4,540	\$8,247		
	Muskogee 4	\$1,076,408	0%	0.00		\$950,163	\$126,245	6	2037	27.5	0	27.5	\$4,591	0.43%	\$21,130	(\$16,539)		
	Muskogee 5	\$994,384	0%	0.00		\$976,571	\$17,813	6	2038	28.5	0	28.5	\$625	0.06%	\$2,588	(\$1,963)		
	Muskogee 6	\$1,013,808	0%	0.00		\$836,440	\$177,368	6	2044	34.5	0	34.5	\$5,141	0.51%	\$33,050	(\$27,909)		
	Sooner 1	\$1,363,967	0%	0.00		\$1,204,369	\$159,598	6	2040	30.5	0	30.5	\$5,233	0.38%	\$25,284	(\$20,051)		
	Sooner 2	\$1,241,829	0%	0.00		\$1,141,881	\$99,948	6	2040	30.5	0	30.5	\$3,277	0.26%	\$17,068	(\$13,791)		
	Total Cont. Emission Monitng	\$12,272,561		0.00		\$11,418,928	\$853,634						\$49,394		\$136,856	(\$87,462)		
	Total Account 312	\$890,895,892		(131,793,499.60)		\$599,379,421	\$423,309,971						\$16,259,084		\$19,760,834	(\$3,501,750)		
314	Turbogenerator Units																	
	Horseshoe Lake 6	\$7,105,527	-5%	(355,276.35)		\$6,660,566	\$800,237	6	2018	8.5	0.0013	8.45	\$94,703	1.33%	\$96,750	(\$2,047)		
	Horseshoe Lake 7	\$15,817,494	-5%	(790,874.72)		\$13,853,445	\$2,754,924	6	2024	14.5	0.0013	14.36	\$191,847	1.21%	\$212,965	(\$21,117)		
	Horseshoe Lake 8	\$15,618,017	-5%	(780,900.83)		\$13,099,169	\$3,299,748	12	2029	20	0.0013	19.74	\$167,161	1.07%	\$179,078	(\$11,917)		
	Mustang 1	\$4,979,672	-5%	(248,983.59)		\$4,601,512	\$627,143	6	2016	6.5	0.0013	6.47	\$96,931	1.95%	\$98,725	(\$1,794)		
	Mustang 2	\$4,481,293	-5%	(224,064.65)		\$4,427,802	\$277,556	6	2016	6.5	0.0013	6.47	\$42,899	0.96%	\$43,640	(\$741)		
	Mustang 3	\$8,607,964	-5%	(430,398.19)		\$8,899,619	\$138,743	6	2017	7.5	0.0013	7.46	\$18,598	0.22%	\$19,023	(\$425)		
	Mustang 4	\$12,814,545	-5%	(640,727.27)		\$12,928,507	\$526,766	6	2020	10.5	0.0013	10.5	\$50,505	0.39%	\$52,073	(\$1,568)		
	Seminole GT	\$1,588,884	-5%	(79,444.22)		\$1,667,981	\$348	6	2007	-2.5	0.0013	-2.5	(\$139)	-0.01%	\$0	(\$139)		

OKLAHOMA GAS AND ELECTRIC COMPANY
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ANNUAL DEPRECIATION RATES BY COMPONENT AS OF DECEMBER 31, 2009

Account	Description	Original Cost (a)	%	Net Salvage		Book Reserve (d)	Future Accruals (e)	Retirement Month (f)	Retirement Year (g)	Remaining Life (h)	OIEC Recommended		Annual Accrual (k)	Rate (l)	OGE		OIEC Adjustment (n)		
				\$							Interim Ret Rate (i)	Adjusted Rem. Life (j)			Annual Accrual (m)				
315	Accessory Electric Equipment																		
	Horsehoe Lake 6	\$1,889,965	-3%	(1,054,200.13)		\$1,723,351	\$223,313	6	2018	8.5	0.0005	8.48	\$26,334	1.39%	\$26,278	\$66			
	Horsehoe Lake 7	\$1,880,101	-3%	(56,403.02)		\$1,674,209	\$262,295	6	2024	14.5	0.0005	14.45	\$18,152	0.97%	\$18,219	(\$67)			
	Horsehoe Lake 8	\$2,183,098	-3%	(65,492.95)		\$1,910,518	\$338,073	12	2029	20	0.0005	19.9	\$16,989	0.78%	\$17,140	(\$151)			
	Mustang 1	\$825,603	-3%	(24,768.08)		\$624,684	\$225,687	6	2016	6.5	0.0005	6.49	\$34,775	4.21%	\$34,720	\$55			
	Mustang 2	\$512,158	-3%	(15,364.75)		\$506,029	\$21,494	6	2016	6.5	0.0005	6.49	\$3,312	0.65%	\$3,307	\$5			
	Mustang 3	\$1,124,421	-3%	(33,732.62)		\$1,165,760	-\$7,607	6	2017	7.5	0.0005	7.49	(\$1,016)	-0.09%	\$0	(\$1,016)			
	Mustang 4	\$1,664,001	-3%	(49,920.02)		\$1,678,940	\$34,981	6	2020	10.5	0.0005	10.47	\$3,341	0.20%	\$3,338	\$3			
	Seminole 1	\$3,006,771	-3%	(90,203.13)		\$2,552,924	\$544,050	6	2033	25.5	0.0005	25.34	\$21,470	0.71%	\$35,597	(\$14,127)			
	Seminole 2	\$1,948,854	-3%	(58,465.61)		\$1,513,618	\$493,701	6	2033	23.5	0.0005	23.36	\$21,134	1.08%	\$31,824	(\$10,690)			
	Seminole 3	\$4,586,212	-3%	(149,586.37)		\$3,446,087	\$1,689,911	6	2035	25.5	0.0005	25.34	\$66,682	1.34%	\$84,928	(\$18,246)			
	Muskogee 3	\$1,521,484	-3%	(45,644.51)		\$1,513,517	\$53,611	6	2012	2.5	0.0005	2.5	\$21,444	1.41%	\$21,445	(\$1)			
	Muskogee 4	\$19,223,563	-3%	(576,706.89)		\$13,348,158	\$6,452,112	6	2037	27.5	0.0015	26.93	\$239,588	1.25%	\$298,397	(\$58,809)			
	Muskogee 5	\$11,452,160	-3%	(343,564.81)		\$7,711,940	\$4,083,785	6	2038	28.5	0.0015	27.89	\$146,425	1.28%	\$195,764	(\$49,339)			
	Muskogee 6	\$41,415,138	-3%	(1,242,454.13)		\$25,896,253	\$16,761,339	6	2044	34.5	0.0015	33.61	\$498,701	1.20%	\$628,294	(\$129,593)			
	Sooner 1	\$23,449,851	-3%	(703,495.54)		\$16,455,322	\$7,698,025	6	2040	30.5	0.0015	29.8	\$258,323	1.10%	\$353,414	(\$95,091)			
	Sooner 2	\$12,458,012	-3%	(373,740.35)		\$8,030,068	\$4,801,684	6	2040	30.5	0.0015	29.8	\$161,130	1.29%	\$210,596	(\$49,466)			
	Total Accessory Ele Eqpt		\$129,541,390		(3,886,241.71)		\$89,751,378	\$43,676,254					\$1,536,784			\$1,963,261	(\$426,477)		
	316	Miscellaneous Power Plant Equipment																	
		Horsehoe Lake 6	\$1,567,638	-10%	(156,763.77)		\$1,355,242	\$369,160	6	2018	8.5	0.0017	8.44	\$43,739	2.79%	\$44,303	(\$564)		
		Horsehoe Lake 7	\$1,063,899	-10%	(106,389.88)		\$947,338	\$222,951	6	2024	14.5	0.0017	14.32	\$15,569	1.46%	\$16,561	(\$992)		
		Horsehoe Lake 8	\$2,151,654	-10%	(215,165.41)		\$1,882,980	\$483,840	12	2029	20	0.0017	19.66	\$24,610	1.14%	\$26,872	(\$2,262)		
		Mustang 1	\$687,949	-10%	(68,794.91)		\$661,634	\$195,110	6	2016	6.5	0.0017	6.46	\$30,203	4.39%	\$30,757	(\$554)		
		Mustang 2	\$300,370	-10%	(30,037.02)		\$296,634	\$33,773	6	2016	6.5	0.0017	6.46	\$5,228	1.74%	\$5,338	(\$110)		
Mustang 3		\$460,718	-10%	(46,071.76)		\$494,938	\$11,851	6	2017	7.5	0.0017	7.45	\$1,591	0.35%	\$1,743	(\$152)			
Mustang 4		\$1,483,099	-10%	(148,309.92)		\$705,524	\$925,885	6	2020	10.5	0.0017	10.41	\$88,942	6.00%	\$100,013	(\$11,071)			
Seminole 1		\$3,807,808	-10%	(380,780.81)		\$2,857,948	\$1,330,641	6	2035	25.5	0.0017	24.95	\$53,332	1.40%	\$92,369	(\$39,037)			
Seminole 2		\$2,033,565	-10%	(203,356.50)		\$1,624,038	\$612,884	6	2033	23.5	0.0017	23.03	\$26,612	1.31%	\$40,811	(\$14,199)			
Seminole 3		\$2,268,898	-10%	(226,889.77)		\$1,566,165	\$979,622	6	2035	25.5	0.0017	24.95	\$37,259	1.64%	\$50,374	(\$13,115)			
Muskogee 3		\$89,846.35	-10%	(8,984.63)		\$929,844	\$58,466	6	2012	2.5	0.0017	2.49	\$23,480	2.61%	\$23,756	(\$276)			
Muskogee 4		\$5,460,678	-10%	(546,067.78)		\$3,927,518	\$2,079,228	6	2037	27.5	0.0003	27.39	\$75,912	1.39%	\$91,173	(\$15,261)			
Muskogee 5		\$2,190,260	-10%	(219,026.03)		\$1,093,813	\$1,315,473	6	2038	28.5	0.0003	28.38	\$46,352	2.12%	\$62,469	(\$16,117)			
Muskogee 6		\$5,941,701	-10%	(594,170.14)		\$4,235,893	\$2,299,979	6	2044	34.5	0.0003	34.32	\$67,016	1.13%	\$94,131	(\$27,115)			
Sooner 1		\$5,628,263	-10%	(562,826.26)		\$3,773,359	\$2,417,730	6	2040	30.5	0.0003	30.36	\$79,635	1.41%	\$109,804	(\$30,169)			
Sooner 2		\$2,064,576	-10%	(206,457.56)		\$1,314,235	\$956,798	6	2040	30.5	0.0003	30.36	\$31,515	1.53%	\$46,185	(\$14,670)			
Power Supply Services		\$956,164		(95,616.35)		\$128,529	\$923,251					\$19,261			\$19,261	\$0			

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Account	Description	Original Cost (a)	% (b)	Net Salvage		Book Reserve (d)	Future Accruals (e)	Retirement		Remaining Life (h)	OIEC Recommended		Annual Accrual (k)	Rate (l)	OGE		OIEC Adjustment (n)	
				\$ (c)	%			Month (f)	Year (g)		Interim Ret. Rate (i)	Adjusted Rem. Life (j)			Annual Accrual (m)			
316	Miscellaneous Power Plant Equipment																	
	Power Supply Services	\$13,737,806	NA		NA													
	Total Misc Power Plant Eqpt	\$38,965,702		(3,896,570.21)		\$27,695,632	\$15,166,640					\$670,258			\$855,920		(\$185,662)	
	Total Steam Production	1,700,932,472		(204,881,334.53)		\$1,152,538,911	\$729,191,798					\$28,634,177			\$35,320,737		(\$6,686,560)	
340	OTHER PRODUCTION PLANT																	
	Land																	
	Redbud 1	\$326,890	NA		NA													
	McClain Gas 1	\$489,856	NA		NA													
	Total Land	\$816,746																
341	Structures and Improvements																	
	Redbud 1	\$31,744,432	0%	0.00		\$7,631,804	\$24,112,628	6	2039	29.5	0.0069	26.5	\$909,910	2.87%	\$938,203		(\$28,293)	
	Horseshoe Lake 9 and 10	\$987,208	0%	0.00		\$271,687	\$715,521	6	2035	25.5	0.0069	23.26	\$30,762	3.12%	\$28,759		\$2,003	
	End	\$62,485	0%	0.00		\$62,202	\$283	6	2011	1.5	0.0069	1.49	\$190	0.30%	\$191		(\$1)	
	Tinker	\$966,605	0%	0.00		\$820,480	\$146,125	6	2018	8.5	0.0069	8.25	\$17,712	1.83%	\$17,191		\$521	
	Woodward	\$20,608	0%	0.00		\$20,608	\$0	6	2011	1.5	0.0069	1.49	\$0	0.00%	\$0		\$0	
	McClain Gas 1	\$2,984,703	0%	0.00		\$614,955	\$2,369,748	6	2036	26.5	0.0069	24.08	\$98,411	3.30%	\$110,659		(\$12,248)	
	McClain Gas 2	\$1,665,511	0%	0.00		\$330,650	\$1,334,861	6	2036	26.5	0.0069	24.08	\$55,434	3.33%	\$62,406		(\$6,972)	
	McClain Stream 1	\$832,755	0%	0.00		\$163,579	\$669,176	6	2036	26.5	0.0069	24.08	\$27,790	3.34%	\$31,285		(\$3,495)	
	Centennial Wind Farm	\$2,189,200	0%	0.00		\$254,633	\$1,934,567	6	2031	21.5	0.0069	19.91	\$97,166	4.44%	\$90,485		\$6,681	
	OU Spirit Wind Farm	\$5,081,452	0%	0.00		\$42,346	\$5,039,106	6	2042	32.5	0.0069	28.86	\$174,605	3.44%	\$206,690		(\$32,085)	
	Total Structures and Improvem	\$46,534,959		0.00		\$10,212,944	\$36,322,015					\$1,411,981			\$1,485,869		(\$73,888)	
342	Fuel Holders, Products and Accessories																	
	Redbud 1	\$11,493,088	-10%	(1,149,308.76)		\$2,620,446	\$10,021,950	6	2039	29.5	0.0001	29.46	\$340,188	2.96%	\$388,598		(\$48,410)	
	Redbud 2	\$665,421	-10%	(66,542.06)		\$129,050	\$602,913	6	2039	29.5	0.0001	29.46	\$20,465	3.08%	\$23,378		(\$2,913)	
	Redbud 3	\$665,421	-10%	(66,542.05)		\$129,050	\$602,913	6	2039	29.5	0.0001	29.46	\$20,465	3.08%	\$23,378		(\$2,913)	
	Redbud 4	\$665,421	-10%	(66,542.05)		\$129,050	\$602,913	6	2039	29.5	0.0001	29.46	\$20,465	3.08%	\$23,378		(\$2,913)	
	Horseshoe Lake 9 and 10	\$57,972	-10%	(5,797.19)		\$15,954	\$47,815	6	2035	25.5	0.0001	25.47	\$1,877	3.24%	\$1,885		(\$8)	
	End	\$22,430	-10%	(2,243.00)		\$22,328	\$2,345	6	2011	1.5	0.0001	1.5	\$1,563	6.97%	\$1,584		(\$21)	
	Tinker	\$107,100	-10%	(10,710.00)		\$91,935	\$25,875	6	2018	8.5	0.0001	8.5	\$3,044	2.84%	\$3,047		(\$3)	
	Woodward	\$40,433	-10%	(4,043.25)		\$40,433	\$4,043	6	2011	1.5	0.0001	1.5	\$2,695	6.67%	\$2,733		(\$38)	
	McClain Gas 1	\$284,431	-10%	(28,443.10)		\$86,816	\$226,058	6	2036	26.5	0.0001	26.46	\$8,543	3.00%	\$10,549		(\$2,006)	
	McClain Gas 2	\$283,290	-10%	(28,329.04)		\$56,541	\$255,078	6	2036	26.5	0.0001	26.46	\$9,640	3.40%	\$11,917		(\$2,277)	
	Total Fuel Holders, Products an	\$14,285,005		(1,428,500.49)		\$3,321,603	\$12,391,902					\$428,948			\$490,447		(\$61,499)	
343	Prime Movers																	
	Redbud 1	\$77,820,007	0%	0.00		\$13,388,142	\$64,431,865	6	2039	29.5	0.0044	27.59	\$2,335,334	3.00%	\$2,897,952		(\$562,618)	
	Redbud 2	\$57,621,126	0%	0.00		\$10,232,067	\$47,389,059	6	2039	29.5	0.0044	27.59	\$1,717,617	2.98%	\$2,127,267		(\$409,650)	
	Redbud 3	\$61,284,730	0%	0.00		\$9,669,594	\$51,615,136	6	2039	29.5	0.0044	27.59	\$1,870,791	3.05%	\$2,318,501		(\$447,710)	
	Redbud 4	\$57,621,125	0%	0.00		\$10,232,184	\$47,388,941	6	2039	29.5	0.0044	27.59	\$1,717,613	2.98%	\$2,127,260		(\$409,647)	
	Horseshoe Lake 9 and 10	\$4,162,234	0%	0.00		\$1,140,192	\$3,022,042	6	2035	25.5	0.0044	24.07	\$125,552	3.02%	\$153,282		(\$27,730)	
	End	\$10,718	0%	0.00		\$10,669	\$49	6	2011	1.5	0.0044	1.5	\$32	0.30%	\$40		(\$8)	
	Tinker	\$3,787,101	0%	0.00		\$3,250,827	\$536,274	6	2018	8.5	0.0044	8.34	\$64,301	1.70%	\$63,975		\$326	
	McClain Gas 1	\$54,936,287	0%	0.00		\$9,755,563	\$45,180,724	6	2036	26.5	0.0044	24.96	\$1,810,125	3.29%	\$2,304,148		(\$494,023)	

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Account	Description	Original Cost (a)	% (b)	Net Salvage		Book Reserve (d)	Future Accruals (e)	Retirement Month (f)	Year (g)	Remaining Life (h)	OIEC Recommended		OGE		OIEC Adjustment (n)		
				\$ (c)							Interim Ret. Rate (i)	Adjusted Rem. Life (j)	Annual Accrual (k)	Rate (l)		Annual Accrual (m)	
343.99	Continuous Emission Monitoring																
	Redbud 1	\$285,021	0%	0.00		\$171,014	\$114,007					0.0044	24.96	\$1,896,419	3.27%	\$2,414,778	(\$518,359)
	Redbud 2	\$285,021	0%	0.00		\$171,014	\$114,007					0.0044	24.96	\$993,464	3.22%	\$1,273,387	(\$279,923)
	Redbud 3	\$285,021	0%	0.00		\$171,014	\$114,007							\$25,335		\$25,335	\$0
	Redbud 4	\$285,021	0%	0.00		\$171,014	\$114,007							\$25,335		\$25,335	\$0
	Horseshoe Lake 9 and 10	\$15,307	0%	0.00		\$10,049	\$5,258							\$701		\$701	\$0
	McClain Gas 1	\$199,419	0%	0.00		\$49,217	\$150,202							\$32,262		\$32,262	\$0
	McClain Gas 2	\$195,785	0%	0.00		\$66,435	\$129,350							\$28,054		\$28,054	\$0
	Total Cont Emiss Monitng	\$1,550,595		0.00		\$809,757	\$740,838							\$162,357		\$162,357	\$0
	LTSA																
343.1	1-Year																
	McClain Gas 2	\$195,224	0%	0.00		\$195,224	\$0							\$0		\$0	\$0
343.2	2-Year																
	McClain Gas 1	\$218,878	0%	0.00		\$104,880	\$113,998							\$56,999		\$56,999	\$0
	McClain Gas 2	\$594,417	0%	0.00		\$472,359	\$122,058							\$61,029		\$61,029	\$0
343.3	3-Year																
	McClain Gas 1	\$4,164,743	0%	0.00		\$2,931,661	\$1,233,082							\$411,027		\$411,027	\$0
	McClain Gas 2	\$4,127,749	0%	0.00		\$2,807,489	\$1,320,260							\$440,087		\$440,087	\$0
343.4	4-Year																
	McClain Gas 1	\$972,452	0%	0.00		\$972,452	\$0							\$0		\$0	\$0
343.5	5-Year																
	Redbud 2	\$2,177,055	0%	0.00		\$163,289	\$2,013,766							\$402,753		\$402,753	\$0
	Redbud 3	\$795,215	0%	0.00		\$59,645	\$735,570							\$147,114		\$147,114	\$0
	McClain Gas 1	\$1,534,648	0%	0.00		\$1,424,447	\$110,201							\$0		\$0	\$0
	McClain Gas 2	\$1,279,366	0%	0.00		\$1,150,318	\$129,048							\$0		\$0	\$0
343.6	6-Year																
	Redbud 1	\$1,709,159	0%	0.00		\$1,709,159	\$0							\$0		\$0	\$0
	Redbud 3	\$4,405,414	0%	0.00		\$3,863,748	\$541,666							\$114,852		\$114,852	\$0
	Redbud 4	\$1,709,159	0%	0.00		\$1,709,159	\$0							\$0		\$0	\$0
	McClain Gas 1	\$7,595,359	0%	0.00		\$6,489,958	\$1,095,401							\$1,046,279		\$1,046,279	\$0
	McClain Gas 2	\$7,599,574	0%	0.00		\$6,500,664	\$1,098,910							\$1,046,315		\$1,046,315	\$0
343.7	7-Year																
	McClain Gas 1	\$1,641,382	0%	0.00		\$1,182,197	\$459,185							\$306,123		\$306,123	\$0
343.2	20-Year																
	Redbud 2	\$10,210,713	0%	0.00		\$191,461	\$10,019,252							\$513,808		\$513,808	\$0
	Redbud 3	\$5,053,215	0%	0.00		\$322,118	\$4,731,097							\$242,620		\$242,620	\$0
343.24	24-Year																
	Redbud 1	\$1,490,678	0%	0.00		\$372,670	\$1,118,008							\$49,689		\$49,689	\$0
	Redbud 2	\$1,490,678	0%	0.00		\$372,670	\$1,118,008							\$49,689		\$49,689	\$0
	Redbud 3	\$1,490,678	0%	0.00		\$372,670	\$1,118,008							\$49,689		\$49,689	\$0
	Redbud 4	\$1,490,678	0%	0.00		\$372,670	\$1,118,008							\$49,689		\$49,689	\$0
	Total LTSA	\$61,946,434		0.00		\$33,750,908	\$28,195,526							\$4,987,762		\$4,987,762	\$0

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Account	Discription	Original Cost (a)	Net Salvage % (b)	Net Salvage \$ (c)	Book Reserve (d)	Future Accruals (e)	Retirement Month (f)	Retirement Year (g)	Remaining Life (h)	OIEC Recommended		Annual Accrual (k)	Rate (l)	OGE		
										Interim Ret. Rate (i)	Adjusted Rem. Life (j)			Annual Accrual (m)	OIEC Adjustment (n)	
344	Generators															
	Horseshoe Lake 9 and 10	\$31,559,139	-5%	(1,577,956.95)	\$8,693,816	\$24,443,280	6	2035	25.5	0.0006	25.3	\$966,138	3.06%	\$1,022,499	(\$56,361)	
	End	\$5,108,466	-5%	(255,423.32)	\$5,008,369	\$355,521	6	2011	1.5	0.0006	1.5	\$237,014	4.64%	\$237,327	(\$313)	
	Tinker	\$2,348,519	-5%	(117,425.95)	\$1,954,930	\$511,015	6	2018	8.5	0.0006	8.48	\$60,261	2.57%	\$60,502	(\$241)	
	Woodward	\$1,133,948	-5%	(56,697.38)	\$1,133,948	\$56,697	6	2011	1.5	0.0006	1.5	\$37,798	3.33%	\$38,044	(\$246)	
	Centennial Wind Farm	\$187,201,017	-5%	(9,360,050.87)	\$22,220,445	\$174,340,623	6	2036	26.5	0.0006	26.29	\$6,631,442	3.54%	\$8,344,985	(\$1,713,543)	
	OU Spirit Wind Farm	\$246,201,271	-5%	(12,310,063.56)	\$1,007,974	\$257,503,361	6	2042	32.5	0.0006	32.18	\$8,001,969	3.25%	\$10,824,017	(\$2,822,048)	
	Total Generators	\$473,552,361		(23,677,618.03)	\$40,019,482	\$457,210,497								\$15,934,622	\$20,527,374	(\$4,592,752)
345	Accessory Electric Equipment															
	Redbud 1	\$12,737,485	0%	0.00	\$2,542,618	\$10,194,867	6	2039	29.5	0.0034	28.02	\$363,843	2.86%	\$546,642	(\$182,799)	
	Redbud 2	\$8,936,877	0%	0.00	\$1,733,196	\$7,203,681	6	2039	29.5	0.0034	28.02	\$257,091	2.88%	\$386,256	(\$129,165)	
	Redbud 3	\$8,936,877	0%	0.00	\$1,733,196	\$7,203,681	6	2039	29.5	0.0034	28.02	\$257,091	2.88%	\$386,256	(\$129,165)	
	Redbud 4	\$8,936,877	0%	0.00	\$1,733,196	\$7,203,681	6	2039	29.5	0.0034	28.02	\$257,091	2.88%	\$386,256	(\$129,165)	
	Horseshoe Lake 9 and 10	\$6,549,455	0%	0.00	\$1,802,457	\$4,746,998	6	2035	25.5	0.0034	24.39	\$194,629	2.97%	\$306,278	(\$111,649)	
	End	\$58,389	0%	0.00	\$58,124	\$265	6	2011	1.5	0.0034	1.5	\$176	0.30%	\$243	(\$67)	
	Tinker	\$2,805,422	0%	0.00	\$2,418,640	\$386,782	6	2018	8.5	0.0034	8.38	\$46,155	1.65%	\$60,389	(\$14,234)	
	Woodward	\$18,721	0%	0.00	\$18,721	\$0	6	2011	1.5	0.0034	1.5	(\$0)	0.00%	\$0	(\$0)	
	McClain Gas 1	\$3,212,003	0%	0.00	\$623,338	\$2,588,665	6	2036	26.5	0.0034	25.31	\$102,278	3.18%	\$148,877	(\$46,599)	
	McClain Gas 2	\$3,178,255	0%	0.00	\$632,312	\$2,545,943	6	2036	26.5	0.0034	25.31	\$100,590	3.16%	\$146,750	(\$46,160)	
	McClain Steam 1	\$2,126,130	0%	0.00	\$417,639	\$1,708,491	6	2036	26.5	0.0034	25.31	\$67,503	3.17%	\$98,794	(\$31,291)	
	Total Accessory Elec Eqpt	\$57,496,490		0.00	\$13,713,437	\$43,783,053								\$1,646,446	\$2,466,741	(\$820,295)
346	Miscellaneous Power Plant Equipment															
	Redbud 1	\$1,747,708	0%	0.00	\$348,877	\$1,398,831	6	2039	29.5	0.0033	28.06	\$49,851	2.85%	\$64,373	(\$14,522)	
	Horseshoe Lake 9 and 10	\$905,722	0%	0.00	\$249,261	\$656,461	6	2035	25.5	0.0033	24.43	\$26,871	2.97%	\$33,504	(\$6,633)	
	End	\$636	0%	0.00	\$634	\$2	6	2011	1.5	0.0033	1.5	\$2	0.24%	\$2	(\$1)	
	Tinker	\$120,700	0%	0.00	\$102,014	\$18,686	6	2018	8.5	0.0033	8.38	\$2,230	1.85%	\$2,630	(\$400)	
	Woodward	\$2,497	0%	0.00	\$2,497	\$0	6	2011	1.5	0.0033	1.5	(\$0)	0.00%	\$0	(\$0)	
	McClain Gas 1	\$4,535,948	0%	0.00	\$877,256	\$3,658,692	6	2036	26.5	0.0033	25.34	\$144,384	3.18%	\$190,802	(\$46,418)	
	McClain Gas 2	\$25,479	0%	0.00	\$5,051	\$20,428	6	2036	26.5	0.0033	25.34	\$806	3.16%	\$1,024	(\$218)	
	McClain Steam 1	\$37,435	0%	0.00	\$7,353	\$30,082	6	2036	26.5	0.0033	25.34	\$1,187	3.17%	\$1,520	(\$333)	
	Centennial Wind Farm	\$3,180	0%	0.00	\$373	\$2,807	6	2039	29.5	0.0033	28.06	\$100	3.15%	\$135	(\$35)	
	Total Misc Power Plant Eqpt	\$7,379,305		0.00	\$1,593,316	\$5,785,989								\$225,431	\$293,990	(\$68,559)
	Total Other Production	\$1,069,579,301		(25,106,118.52)	\$177,743,266	\$916,125,408								\$37,328,798	\$46,095,130	(\$8,766,332)
	Total Production	\$2,770,511,773		(229,987,453.05)	\$1,330,282,177	\$1,645,317,205								\$65,962,976	\$81,415,867	(\$15,452,891)
353	Transmission Plant	\$305,911,651	-5%	(15,295,582.55)	\$93,986,732	\$227,220,502										
	Total Adjustment															(\$16,942,852)

SOURCES AND REFERENCES:
Columns (a), (b), (d), (m) : 2008 Study at pages III-4 through III-9 except for Account 353.

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Account	Description	Original Cost		Net Salvage		Book Reserve	Future Accruals	Retirement		Remaining Life	OIEC Recommended		Annual Accrual	Rate	OGE Annual Accrual	OIEC Adjustment
		(a)	(b)	(c)	(d)			(e)	(f)		(g)	(h)				
Column (c)																
Column (e)																
Columns (f), (g)																
Column (h)																
Column (i)																
Column (j)																
Column (k)																
Column (l)																
Column (n)																

: Column (b) x column (a).
: Column (a) - column (b) - column (d).
: 2008 Study at pages III-4 through III-9 except as adjusted by OIEC.
: 2010 less forecasted retirement date.
: As recommended by OIEC.
: Column (h) x (1 - (column (i) ÷ 2 x column (h))).
: Column (e) ÷ column (j).
: Column (k) ÷ column (a).
: Column (k) - column (m).